

Sequence Listing

<110> Ashkenazi, Avi
 Baker Kevin P.
 Botstein, David
 Desnoyers, Luc
 Eaton, Dan
 Ferrara, Napoleon
 Filvaroff, Ellen
 Fong, Sherman
 Gao, Wei-Qiang
 Gerber, Hanspeter
 Gerritsen, Mary E.
 Goddard, Audrey
 Godowski, Paul J.
 Grimaldi, J. Christopher
 Gurney, Austin L.
 Hillan, Kenneth J
 Kljavin, Ivar J.
 Kuo, Sophia S.
 Napier, Mary A.
 Pan, James;
 Paoni, Nicholas F.
 Roy, Margaret Ann
 Shelton, David L.
 Stewart, Timothy A.
 Tumas, Daniel
 Williams, P. Mickey
 Wood, William I.

<120> Secreted and Transmembrane Polypeptides and Nucleic
 Acids Encoding the Same

<130> P2630P1C15

<150> 09/918585
 <151> 2001-07-30

<150> 60/062250
 <151> 1997-10-17

<150> 60/064249
 <151> 1997-11-03

<150> 60/065311
 <151> 1997-11-13

<150> 60/066364
 <151> 1997-11-21

<150> 60/077450
 <151> 1998-03-10

<150> 60/077632
 <151> 1998-03-11

<150> 60/077641
 <151> 1998-03-11

<150> 60/077649
<151> 1998-03-11

<150> 60/077791
<151> 1998-03-12

<150> 60/078004
<151> 1998-03-13

<150> 60/078886
<151> 1998-03-20

<150> 60/078936
<151> 1998-03-20

<150> 60/078910
<151> 1998-03-20

<150> 60/078939
<151> 1998-03-20

<150> 60/079294
<151> 1998-03-25

<150> 60/079656
<151> 1998-03-26

<150> 60/079664
<151> 1998-03-27

<150> 60/079689
<151> 1998-03-27

<150> 60/079663
<151> 1998-03-27

<150> 60/079728
<151> 1998-03-27

<150> 60/079786
<151> 1998-03-27

<150> 60/079920
<151> 1998-03-30

<150> 60/079923
<151> 1998-03-30

<150> 60/080105
<151> 1998-03-31

<150> 60/080107
<151> 1998-03-31

<150> 60/080165
<151> 1998-03-31

<150> 60/080194

099705-101601

<151> 1998-05-07

<150> 60/084640
<151> 1998-05-07

<150> 60/084598
<151> 1998-05-07

<150> 60/084600
<151> 1998-5-07

<150> 60/084627
<151> 1998-05-07

<150> 60/084643
<151> 1998-05-07

<150> 60/085339
<151> 1998-05-13

<150> 60/085338
<151> 1998-05-13

<150> 60/085323
<151> 1998-05-13

<150> 60/085582
<151> 1998-05-15

<150> 60/085700
<151> 1998-05-15

<150> 60/085689
<151> 1998-05-15

<150> 60/085579
<151> 1998-05-15

<150> 60/085580
<151> 1998-05-15

<150> 60/085573
<151> 1998-05-15

<150> 60/085704
<151> 1998-05-15

<150> 60/085697
<151> 1998-05-15

<150> 60/086023
<151> 1998-05-18

<150> 60/086430
<151> 1998-05-22

<150> 60/086392
<151> 1998-05-22

[illegible]

```
<150> 09/380138
<151> 1999-08-25
```

<150> 09/380142
<151> 1999-08-25

<150> 09/709238
<151> 2000-11-08

<150> 09/723749
<151> 2000-11-27

<150> 09/747259
<151> 2000-12-20

<150> 09/816744
<151> 2001-03-22

<150> 09/816920
<151> 2001-03-22

<150> 09/854280
<151> 2001-05-10

<150> 09/854208
<151> 2001-05-10

<150> 09/872035
<151> 2001-06-01

<150> 09/874503
<151> 2001-06-05

<150> 09/882636
<151> 2001-06-14

<150> 09/886342
<151> 2001- 06-19

<150> PCT/US98/21141
<151> 1998-10-07

<150> PCT/US98/24855
<151> 1998-11-20

<150> PCT/US99/00106
<151> 1999-01-05

<150> PCT/US99/05028
<151> 1999-03-08

<150> PCT/US99/05190
<151> 1999-03-10

<150> PCT/US99/10733
<151> 1999-05-14

<150> PCT/US99/12252
<151> 1999-06-02

<150> PCT/US99/28313

09972505 101601

<151> 1999-11-30

<150> PCT/US99/28551

<151> 1999-12-02

<150> PCT/US99/28565

<151> 1999-12-02

<150> PCT/US99/30095

<151> 1999-12-16

<150> PCT/US99/31243

<151> 1999-12-30

<150> PCT/US99/31274

<151> 1999-12-30

<150> PCT/US00/00219

<151> 2000-05-01

<150> PCT/US00/00277

<151> 2000-01-06

<150> PCT/US00/00376

<151> 2000-01-06

<150> PCT/US00/03565

<151> 2000-02-11

<150> PCT/US00/04341

<151> 2000-02-18

<150> PCT/US00/05841

<151> 2000-03-02

<150> PCT/US00/07532

<151> 2000-03-21

<150> PCT/US00/05004

<151> 2000-02-24

<150> PCT/US00/06319

<151> 2000-03-10

<150> PCT/US00/08439

<151> 2000-03-30

<150> PCT/US00/13705

<151> 2000-05-17

<150> PCT/US00/14042

<151> 2000-05-22

<150> PCT/US00/14941

<151> 2000-05-30

<150> PCT/US00/15264

<151> 2000-06-02

<150> PCT/US00/20710
<151> 2000-07-28

<150> PCT/US00/23328
<151> 2000-08-24

<150> PCT/US00/32678
<151> 2000-12-01

<150> PCT/US00/34956
<151> 2000-12-20

<150> PCT/US01/06520
<151> 2001-02-28

<150> PCT/US01/09552
<151> 2001-03-22

<150> PCT/US01/17092
<151> 2001-05-25

<150> PCT/US01/17800
<151> 2001-06-01

<150> PCT/US01/19692
<151> 2001-06-20

<150> PCT/US01/21066
<151> 2001-06-29

<150> PCT/US01/21735
<151> 2001-07-09

<160> 624

<210> 1
<211> 1743
<212> DNA
<213> Homo sapiens

<400> 1
ccaggtccaa ctgcacctcg gttctatcga ttgaattccc cggggatcct 50
ctagagatcc ctgcacctcg acccaacggt cgcgaagct ggccctgcac 100
ggctgcaagg gaggtcctg tggacaggcc aggcaggtgg gcctcaggag 150
gtgcctccag gcggccagtg ggctgaggc cccagcaagg gctagggtcc 200
atctccagtc ccaggacaca gcagcggcca ccatggccac gcctgggctc 250
cagcagcatc agcagcccc aggaccgggg gaggcacagg tggccccac 300
caccgggagg agcagctcct gccctgtcc gggggatgac tgattctcct 350
ccgccaggcc acccagagga gaaggccacc ccgcctggag gcacaggcca 400
tgaggggctc tcaggaggtg ctgctgatgt ggcttctggt gttggcagt 450

ggcggcacag agcacgccta ccgccccggc cgtaggggtg tgtgctgtcc 500
 cgggctcacg gggaccctgt ctccgagtcg ttcgtgcagc gtgtgtacca 550
 gcccttcctc accacctgcg acgggcaccg ggccctgcagc acctaccgaa 600
 ccatttatag gaccgcctac cgccgcagcc ctgggctggc ccctgccagg 650
 cctcgctacg cgtgctgccc cggctggaag aggaccagcg ggcttcctgg 700
 ggccctgtgga gcagcaatat gccagccgcc atgccggaac ggaggagct 750
 gtgtccagcc tggccgctgc cgctgccctg caggatggcg gggtgacact 800
 tgccagtacg atgtggatga atgcagtgt aggaggggagc gctgtcccca 850
 gcgctgcac aacaccgccg gcagttactg gtgccagtgt tgggaggggc 900
 acagcctgtc tgcagacggg acactctgtg tgcccaaggg agggccccc 950
 agggtgggcc ccaaccgcagc aggagtggac agtgcaatga aggaagaagt 1000
 gcagaggctg cagtccaggg tggacctgct ggaggagaag ctgcagctgg 1050
 tgctggcccc actgcacagc ctggcctgc aggcactgga gcatgggctc 1100
 ccggaccccg gcagcctcct ggtgcactcc ttccagcagc tcggccgcat 1150
 cgactccctg agcgagcaga ttctcttctt ggaggagcag ctggggctct 1200
 gctcctgcaa gaaagactcg tgactgccc gcgccccagg ctggactgag 1250
 cccctcacgc cgccctgcag ccccatgcc cctgcccac atgctggggg 1300
 tccagaagcc acctcggggg gactgagcgg aaggccaggc agggccttcc 1350
 tccttttctt cctcccttcc cctcgggagg gtccccagac cctggcatgg 1400
 gatgggctgg gatttttttt gtgaatccac ccctggctac cccaccctg 1450
 gttaccccaa cggcatccca aggccagggt ggccctcagc tgagggaagg 1500
 tacgagttcc cctgctggag cctgggaccc atggcacagg ccaggcagcc 1550
 cggaggctgg gtggggcctc agtgggggct gctgcctgac cccagcaca 1600
 ataaaaatga aacgtgaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
 aaaaaaaagg ggggcgcga ctctagagtc gacctgcaga agcttggccg 1700
 ccatggccca acttgtttat tgcagcttat aatggttaca aat 1743

<210> 2
 <211> 295
 <212> PRT
 <213> Homo sapiens
 <400> 2


```
<210> 3
<211> 21
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 3
  tggagcagca atatgccagc c 21
```

```
<210> 4
<211> 22
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 4
      ttttccactc ctgtcgggtt gg 22
```

```
<210> 5
<211> 46
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 5
  ggtgacactt gccagtcaga tgtggatgaa tgcagtgcta ggaggg 46
```

```
<210> 6
<211> 2945
<212> DNA
<213> Homo sapiens
```

```
<400> 6
cgctcgcccc gtcgcccctc gcctccccgc agagtccctt cgcggcagca 50
gatgtgtgtg gggtcagccc acggcgggga ctatggtgaa attccggcg 100
ctcacgcaact actggcccct gatccggttc ttggtgcccc tgggcatcac 150
caacatagcc atcgacttcg gggagcaggc cttgaaccgg ggcattgctg 200
ctgtcaagga ggatgcagtc gagatgctgg ccagctacgg gctggcgta 250
tccctcatga agttcttcac ggggccatg agtgacttca aaaatgtggg 300
cctggtgttt gtgaacagca agagagacag gaccaaagcc gtccgtgtga 350
tggtggtggc aggggccatc gctgccgtct ttcacacact gatagcttat 400
agtgatttag gatactacat tatcaataaa ctgcaccatg tggacgagtc 450
```

ggtggggagc aagacgagaa gggccttcc tgcctcgcc gcctttcctt 500
 tcatggacgc aatggcatgg acccatgctg gcattctctt aaaacacaaa 550
 tacagtttcc tgggtgggatg tgccatcaatc tcagatgtca tagctcaggt 600
 tgtttttgta gccattttgc ttcacagtca cctggaatgc cgggagcccc 650
 tgctcatccc gatcctctcc ttgtacatgg gcgcacttgt gcgctgcacc 700
 accctgtgcc tgggctacta caagaacatt cacgacatca tccctgacag 750
 aagtggcccg gagctggggg gagatgcaac aataagaaag atgctgagct 800
 tctggtggcc tttggctcta attctggcca cacagagaat cagtcggcct 850
 attgtcaacc tctttgtttc ccgggacctt ggtggcagtt ctgcagccac 900
 agaggcagtg gcgattttga cagccacata ccctgtgggt cacatgccat 950
 acggctggtt gacggaaatc cgtgctgtgt atcctgcttt cgacaagaat 1000
 aaccccagca acaaactggt gagcacgagc aacacagtca cggcagccca 1050
 catcaagaag ttcacottcg tctgcatggc tctgtcactc acgctctgtt 1100
 tcgtgatgtt ttggacaccc aacgtgtctg agaaaatctt gatagacatc 1150
 atcggagtgg actttgcott tgcagaactc tgtgttggtc ctttgcggat 1200
 cttctccttc ttcccagttc cagtcacagt gaggcgcat ctcaccgggt 1250
 ggctgatgac actgaagaaa accttcgtcc ttgccccag ctctgtgctg 1300
 cggatcatcg tccatcatgc cagcctcgtg gtcctaccct acctgggggt 1350
 gcacggtgcg acctggggcg tgggctccct cctggcgggc tttgtgggag 1400
 aatccaccat ggtcgccatc gctgcgtgct atgtctaccg gaagcagaaa 1450
 aagaagatgg agaattgagc ggccacggag ggggaagact ctgccatgac 1500
 agacatgcct ccgacagagg aggtgacaga catcgtggaa atgagagagg 1550
 agaattgaata aggcacggga cgccatgggc actgcaggga cggtcagtca 1600
 ggatgacact tcggcatcat ctcttcctc tcccatcgta ttttgttccc 1650
 ttttttttgt tttgttttg taatgaaaga ggccttgatt taaaggtttc 1700
 gtgtcaattc tctagcatc tgggtatgct cacttgacg gggggacctc 1750
 gtgaatggtc tttactgttg ctatgtaaaa acaaacgaaa caactgactt 1800
 catacccctg cctcacgaaa acccaaaaga cacagctgcc tcacggttga 1850
 cgttgtgtcc tccctccctg gacaatctcc tcttgaacc aaaggactgc 1900

				50						55					60
Phe	Phe	Thr	Gly	Pro	Met	Ser	Asp	Phe	Lys	Asn	Val	Gly	Leu	Val	
				65					70					75	
Phe	Val	Asn	Ser	Lys	Arg	Asp	Arg	Thr	Lys	Ala	Val	Leu	Cys	Met	
				80					85					90	
Val	Val	Ala	Gly	Ala	Ile	Ala	Ala	Val	Phe	His	Thr	Leu	Ile	Ala	
				95					100					105	
Tyr	Ser	Asp	Leu	Gly	Tyr	Tyr	Ile	Ile	Asn	Lys	Leu	His	His	Val	
				110					115					120	
Asp	Glu	Ser	Val	Gly	Ser	Lys	Thr	Arg	Arg	Ala	Phe	Leu	Tyr	Leu	
				125					130					135	
Ala	Ala	Phe	Pro	Phe	Met	Asp	Ala	Met	Ala	Trp	Thr	His	Ala	Gly	
				140					145					150	
Ile	Leu	Leu	Lys	His	Lys	Tyr	Ser	Phe	Leu	Val	Gly	Cys	Ala	Ser	
				155					160					165	
Ile	Ser	Asp	Val	Ile	Ala	Gln	Val	Val	Phe	Val	Ala	Ile	Leu	Leu	
				170					175					180	
His	Ser	His	Leu	Glu	Cys	Arg	Glu	Pro	Leu	Leu	Ile	Pro	Ile	Leu	
				185					190					195	
Ser	Leu	Tyr	Met	Gly	Ala	Leu	Val	Arg	Cys	Thr	Thr	Leu	Cys	Leu	
				200					205					210	
Gly	Tyr	Tyr	Lys	Asn	Ile	His	Asp	Ile	Ile	Pro	Asp	Arg	Ser	Gly	
				215					220					225	
Pro	Glu	Leu	Gly	Gly	Asp	Ala	Thr	Ile	Arg	Lys	Met	Leu	Ser	Phe	
				230					235					240	
Trp	Trp	Pro	Leu	Ala	Leu	Ile	Leu	Ala	Thr	Gln	Arg	Ile	Ser	Arg	
				245					250					255	
Pro	Ile	Val	Asn	Leu	Phe	Val	Ser	Arg	Asp	Leu	Gly	Gly	Ser	Ser	
				260					265					270	
Ala	Ala	Thr	Glu	Ala	Val	Ala	Ile	Leu	Thr	Ala	Thr	Tyr	Pro	Val	
				275					280					285	
Gly	His	Met	Pro	Tyr	Gly	Trp	Leu	Thr	Glu	Ile	Arg	Ala	Val	Tyr	
				290					295					300	
Pro	Ala	Phe	Asp	Lys	Asn	Asn	Pro	Ser	Asn	Lys	Leu	Val	Ser	Thr	
				305					310					315	
Ser	Asn	Thr	Val	Thr	Ala	Ala	His	Ile	Lys	Lys	Phe	Thr	Phe	Val	
				320					325					330	
Cys	Met	Ala	Leu	Ser	Leu	Thr	Leu	Cys	Phe	Val	Met	Phe	Trp	Thr	
				335					340					345	

gcggatcttc tccttcttcc cagttccagt cacagtgagg gcgcatctca 500

ccgggtggct gatgacactg aagaaaacct tcgtc 535

<210> 9

<211> 434

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 32, 54, 80, 111, 117, 122, 139, 193, 205, 221, 226, 228, 273, 293, 296, 305, 336, 358, 361

<223> unknown base

<400> 9

tgacggaatc ccgggctggg tctcctggtt tngacaagat aaacccccag 50

caanaaattg gggagcaggg caaaacagtn acgggcagcc cacatcaaga 100

agttcacctt ngtttgnatg gntctgtcaa ctcacgctnt gtttcgtgat 150

gttttggaca cccaaagtgt ttgagaaaat tttgatagac atnatcggag 200

tggantttgc ctttgcagaa ntttgngntg ttcctttgcg gattttctcc 250

tttttcccag ttccagtcac agngaggggcg catctcaccg gngngntgat 300

gacantgaag aaaacctttg tccttgcccc cagctntttg gtgcggatca 350

ttgtcctnat ngccagcctt gtggctctac cctacctggg ggtgcacggt 400

gcgaccctgg gcgtgggttc cctcctggcg ggca 434

<210> 10

<211> 154

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 33, 49, 68, 83, 90, 98, 119

<223> unknown base

<400> 10

tattcccagt tccggtcacg gggagggcgc atntcaccgg gtggctgang 50

acactgaaga aaaccttngt ccttgcccc agntttgtgn tgcggatnat 100

cgctctcacc gccagcctng tggctctacc ctacctgggg gtgcacggtg 150

agac 154

<210> 11

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 11
 ctgatccggt tcttggtgcc cctg 24

<210> 12
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 12
 gctctgtcac tcacgctc 18

<210> 13
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 13
 tcatctcttc cctctccc 18

<210> 14
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 14
 ccttccgccg cgaggttc 18

<210> 15
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 15
 ggcaaagtcc actccgatga tgtc 24

<210> 16
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 16
gcctgctgtg gtcacaggtc tccg 24

<210> 17

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 17

tcggggagca ggccttgaac cggggcattg ctgctgtcaa ggagg 45

<210> 18

<211> 1901

<212> DNA

<213> Homo sapiens

<400> 18

gccccgcgcc cggcgccggg cggccgaagc cgggagccac cgccatgggg 50
gcctgcctgg gagcctgtc cctgtcagc tgcgcgtcct gcctctgcgg 100
ctctgcccc tgcctcctgt gcagctgtg ccccgccagc cgcaactcca 150
ccgtgagccg cctcatcttc acgttcttcc tcttcctggg ggtgctggtg 200
tccatcatta tgctgagccc gggcgtggag agtcagctct acaagctgcc 250
ctgggtgtgt gaggaggggg ccgggatccc caccgtcctg cagggccaca 300
tcgactgtgg ctccctgctt ggctaccgag ctgtctaccg catgtgcttc 350
gccacggcgg ccttcttctt cttctttttc accctgctca tgctctgcgt 400
gagcagcagc cgggaacccc gggctgccat ccagaatggg ttttggttct 450
ttaagtctct gatcctggtg ggcctcaccg tgggtgcctt ctacatccct 500
gacggtcctt tcaccaacat ctggttctac ttccggcgtcg tgggctcctt 550
cctcttcate ctcatccagc tgggtgctgt catcgacttt gcgcactcct 600
ggaaccagcg gtggctgggc aaggccgagg agtgcgattc ccgtgcctgg 650
tacgcaggcc tcttcttctt cactctctc ttctacttgc tgcgatcgc 700
ggcgtggcg ctgatgttca tgtactacac tgagcccagc ggctgccacg 750
agggcaaggc cttcatcagc ctcaacctca ccttctgtgt ctgcgtgtcc 800
atcgtgtgtg tcttgcccaa ggtccaggac gccagccca actcgggtct 850
gctgcaggcc tcggtcatca ccctctacac catgtttgtc acctggtcag 900
ccctatccag tatccctgaa cagaaatgca accccattt gccaaaccag 950

ctgggcaacg agacagttgt ggcaggcccc gagggctatg agaccagtg 1000
 gtgggatgcc ccgagcattg tgggcctcat catcttcctc ctgtgcaccc 1050
 tcttcatcag tctgcgctcc tcagaccacc ggcaggtgaa cagcctgatg 1100
 cagaccgagg agtgcccacc tatgctagac gccacacagc agcagcagca 1150
 gcaggtggca gcctgtgagg gccgggcctt tgacaacgag caggacggcg 1200
 tcacctacag ctactccttc ttccacttct gcctgggtgct ggcctcactg 1250
 cacgtcatga tgacgctcac caactggtac aagcccgggtg agaccggaa 1300
 gatgatcagc acgtggaccg ccgtgtgggt gaagatctgt gccagctggg 1350
 cagggctgct cctctacctg tggaccctgg tagccccact cctcctgcgc 1400
 aaccgcgact tcagctgagg cagcctcaca gcctgccatc tggcgcctcc 1450
 tgccacctgg tgccctctcg ctcggtgaca gccaacctgc cccctcccca 1500
 caccaatcag ccaggctgag cccccacccc tgccccagct ccaggacctg 1550
 cccctgagcc gggccttcta gtcgtagtgc cttcagggtc cgaggagcat 1600
 caggctcctg cagagcccca tccccccgcc acaccacac ggtggagctg 1650
 cctcttcctt cccctcctcc ctgttgccca tactcagcat ctcggatgaa 1700
 agggctccct tgtcctcagg ctccacggga gcggggctgc tggagagagc 1750
 ggggaactcc caccacagtg gggcatccgg cactgaagcc ctggtgttcc 1800
 tggtcacgtc ccccagggga cctgcccc ttcttggtgact tcgtgcctta 1850
 ctgagtctct aagacttttt ctaataaaca agccagtgcg tgtaaaaaaa 1900
 a 1901

<210> 19

<211> 457

<212> PRT

<213> Homo sapiens

<400> 19

Met	Gly	Ala	Cys	Leu	Gly	Ala	Cys	Ser	Leu	Leu	Ser	Cys	Ala	Ser
1				5					10					15
Cys	Leu	Cys	Gly	Ser	Ala	Pro	Cys	Ile	Leu	Cys	Ser	Cys	Cys	Pro
				20					25					30
Ala	Ser	Arg	Asn	Ser	Thr	Val	Ser	Arg	Leu	Ile	Phe	Thr	Phe	Phe
				35					40					45
Leu	Phe	Leu	Gly	Val	Leu	Val	Ser	Ile	Ile	Met	Leu	Ser	Pro	Gly
				50					55					60

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 23
cctgggcaaa aatgcaac 18

<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 24
caggaatgta gaaggcaccc acgg 24

<210> 25
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
tggcacagat cttcacccac acgg 24

<210> 26
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
tgtccatcat tatgctgagc ccgggcgtgg agagtcagct ctacaagctg 50

<210> 27
<211> 1351
<212> DNA
<213> Homo sapiens

<400> 27
gagcgaggcc ggggactgaa ggtgtgggtg tcgagccctc tggcagaggg 50
ttaacctggg tcaaattgcac ggattctcac ctctacagt tacgtctctcc 100
cgcggcacgt ccgcgaggac ttgaagtcct gagcgctcaa gtttgtccgt 150
aggtcgagag aaggccatgg aggtgccgcc accggcaccg cggagctttc 200
tctgtagagc attgtgccta tttccccgag tctttgctgc cgaagctgtg 250

actgccgatt cggaagtcct tgaggagcgt cagaagcggc ttccctacgt 300
cccagagccc tattaccogg aatctggatg ggaccgcctc cgggagctgt 350
ttggcaaaga tgaacagcag agaatttcaa aggaccttgc taatatctgt 400
aagacggcag ctacagcagg catcattggc tgggtgtatg ggggaatacc 450
agcttttatt catgctaaac aacaatacat tgagcagagc caggcagaaa 500
tttatcataa ccggtttgat gctgtgcaat ctgcacatcg tgctgccaca 550
cgaggcttca ttcgttatgg ctggcgctgg ggttgagaaa ctgcagtgtt 600
tgtgactata ttcaacacag tgaacactag tctgaatgta taccgaaata 650
aagatgcctt aagccatttt gtaattgcag gagctgtcac ggggaagtctt 700
tttaggataa acgtaggcct gcgtggcctg gtggctgggtg gcataattgg 750
agccttgctg ggcactcctg taggaggcct gctgatggca tttcagaagt 800
acgctggtga gactgttcag gaaagaaaac agaaggatcg aaaggcactc 850
catgagctaa aactggaaga gtggaaaggc agactacaag ttactgagca 900
cctccctgag aaaattgaaa gtagtttacg ggaagatgaa cctgagaatg 950
atgctaagaa aattgaagca ctgctaaacc ttcctagaaa cccttcagta 1000
atagataaac aagacaagga ctgaaagtgc tctgaacttg aaactcactg 1050
gagagctgaa gggagctgcc atgtccgatg aatgccaaca gacaggccac 1100
tcttttggtca gcctgctgac aaatttaagt gctggtacct gtggtggcag 1150
tggtttgctc ttgtcttttt cttttctttt taactaagaa tggggctggt 1200
gtactctcac tttacttata cttaaattta aatacatact tatgtttgta 1250
ttaatctata aatatatgca tacatggata tatccacca cctagatttt 1300
aagcagtaaa taaaacattt cgcaaaagat taaagttgaa ttttacagtt 1350
t 1351

<210> 28
<211> 285
<212> PRT
<213> Homo sapiens

<400> 28
Met Glu Val Pro Pro Ala Pro Arg Ser Phe Leu Cys Arg Ala
1 5 10 15
Leu Cys Leu Phe Pro Arg Val Phe Ala Ala Glu Ala Val Thr Ala
20 25 30

Asp	Ser	Glu	Val	Leu	Glu	Glu	Arg	Gln	Lys	Arg	Leu	Pro	Tyr	Val	
				35					40					45	
Pro	Glu	Pro	Tyr	Tyr	Pro	Glu	Ser	Gly	Trp	Asp	Arg	Leu	Arg	Glu	
				50					55					60	
Leu	Phe	Gly	Lys	Asp	Glu	Gln	Gln	Arg	Ile	Ser	Lys	Asp	Leu	Ala	
				65					70					75	
Asn	Ile	Cys	Lys	Thr	Ala	Ala	Thr	Ala	Gly	Ile	Ile	Gly	Trp	Val	
				80					85					90	
Tyr	Gly	Gly	Ile	Pro	Ala	Phe	Ile	His	Ala	Lys	Gln	Gln	Tyr	Ile	
				95					100					105	
Glu	Gln	Ser	Gln	Ala	Glu	Ile	Tyr	His	Asn	Arg	Phe	Asp	Ala	Val	
				110					115					120	
Gln	Ser	Ala	His	Arg	Ala	Ala	Thr	Arg	Gly	Phe	Ile	Arg	Tyr	Gly	
				125					130					135	
Trp	Arg	Trp	Gly	Trp	Arg	Thr	Ala	Val	Phe	Val	Thr	Ile	Phe	Asn	
				140					145					150	
Thr	Val	Asn	Thr	Ser	Leu	Asn	Val	Tyr	Arg	Asn	Lys	Asp	Ala	Leu	
				155					160					165	
Ser	His	Phe	Val	Ile	Ala	Gly	Ala	Val	Thr	Gly	Ser	Leu	Phe	Arg	
				170					175					180	
Ile	Asn	Val	Gly	Leu	Arg	Gly	Leu	Val	Ala	Gly	Gly	Ile	Ile	Gly	
				185					190					195	
Ala	Leu	Leu	Gly	Thr	Pro	Val	Gly	Gly	Leu	Leu	Met	Ala	Phe	Gln	
				200					205					210	
Lys	Tyr	Ala	Gly	Glu	Thr	Val	Gln	Glu	Arg	Lys	Gln	Lys	Asp	Arg	
				215					220					225	
Lys	Ala	Leu	His	Glu	Leu	Lys	Leu	Glu	Glu	Trp	Lys	Gly	Arg	Leu	
				230					235					240	
Gln	Val	Thr	Glu	His	Leu	Pro	Glu	Lys	Ile	Glu	Ser	Ser	Leu	Arg	
				245					250					255	
Glu	Asp	Glu	Pro	Glu	Asn	Asp	Ala	Lys	Lys	Ile	Glu	Ala	Leu	Leu	
				260					265					270	
Asn	Leu	Pro	Arg	Asn	Pro	Ser	Val	Ile	Asp	Lys	Gln	Asp	Lys	Asp	
				275					280					285	

<210> 29

<211> 324

<212> DNA

<213> Homo sapiens

<400> 29

cggaagtccc ttgaggagcg tcagaagcgg cttccctacg tcccagagcc 50

ctattacccg gaatctggat gggaccgctc cgggagctgt ttggcaaaga 100
 tgaacagcag agaatttcaa aggaccttgc taatatctgt aagacggcag 150
 ctacagcagg catcattggc tgggtgtatg ggggaatacc agcttttatt 200
 catgctaaac aacaatacat tgagcagagc caggcagaaa tttatcataa 250
 ccggtttgat gctgtgcaat ctgcacatcg tgctgccaca cgaggcttca 300
 ttcgttcattg gctggcgccg aacc 324

<210> 30
 <211> 377
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 262, 330, 371
 <223> unknown base

<400> 30
 tcaagtttgt ccgtaggtcg agagaaggcc atggaggtgc cgccaccggc 50
 accgcggagc ttttttctgt agagcattgt gcctatttcc ccgagttttt 100
 gctgccgaag ctgtgactgc cgattoggaa gtccttgagg agcgtcagaa 150
 gcggcttccc tacgtcccag agccctatta cccggaattt ggatgggacc 200
 gcctccggga gctgtttggc aaagatgaac agcagagaat ttcaaaggac 250
 cttgctgata tntgtaagac ggcagctaca gcaggcatca ttggctgggt 300
 gtatggggga ataccagctt ttattcatgn taaacaacaa tacattgagc 350
 agagccaggc agaaatttat nataacc 377

<210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 31
 tcgtacagtt acgctctccc 20

<210> 32
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

cagttttaca gagatcctgg gtgtttggct gacctacaga tacaggaacc 750
 agaaagaccc ccgcgcgaat cctagtgcac tcctttgatg agaaaacaag 800
 gaagatttcc ttctgtatta tgatcttggt cactttctgt aattttctgt 850
 taagctccat ttgccagttt aaggaaggaa acactatctg gaaaagtacc 900
 ttattgatag tggaattata tttttttact ctatgtttct ctacatgttt 950
 ttttcittcc gttgctgaaa aatatttgaa acttgtggtc tctgaagctc 1000
 ggtggcacct ggaatttact gtattcattg tcgggcactg tccactgtgg 1050
 cctttcttag cttttttacc tgcagaaaaa ctttgtatgg taccactgtg 1100
 ttggttatat ggtgaatctg aacgtacatc tcactggtat aattatatgt 1150
 agcactgtgc tgtgtagata gttcctactg gaaaaagagt ggaaatttat 1200
 taaaatcaga aagtatgaga tcctgttatg ttaagggaaa tccaaattcc 1250
 caattttttt tgggtctttt aggaaagatt gttgtggtaa aaagtgttag 1300
 tataaaaatg ataatttact tgtagtcttt tatgattaca ccaatgtatt 1350
 ctagaaatag ttatgtctta ggaaattgtg gtttaatttt tgactttttac 1400
 aggtaagtgc aaaggagaag tggtttcatg aaatgttcta atgtataata 1450
 acatttacct tcagcctcca tcagaatgga acgagttttg agtaatcagg 1500
 aagtatatct atatgatctt gatattgttt tataataatt tgaagtctaa 1550
 aagactgcat ttttaaacia gttagtatta atgcgttggc ccacgtagca 1600
 aaaagatatt tgattatctt aaaaattgtt aaataccgtt ttcattgaaat 1650
 ttctcagtat tgtaacagca acttgtcaaa cctaagcata tttgaatatg 1700
 atctcccata atttgaaatt gaaatcgtat tgtgtggctc tgtatattct 1750
 gttaaaaaat taaaggacag aaacctttct ttgtgtatgc atgtttgaat 1800
 taaaagaaag taatggaag 1819

<210> 36
 <211> 204
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Val Cys Gly Gly Phe Ala Cys Ser Lys Asn Cys Leu Cys Ala
 1 5 10 15
 Leu Asn Leu Leu Tyr Thr Leu Val Ser Leu Leu Leu Ile Gly Ile
 20 25 30

gaggttttga gatttggttg tggcattggc ctgttnttca gttttacaga 350
gatcctgggt gtttggtga cctacagata caggaaccag 390

<210> 38
<211> 566
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 27
<223> unknown base

<400> 38
aatcccaaat tccccaat ttttggncctt tttagggaaa gatgtgttgt 50
ggtaaaaagt gttagtataa aaatgataat ttacttgtag tcttttatga 100
ttacaccaat gtattctaga atagttagt cttaggaaat tgtggtttaa 150
tttttgactt ttacaggtaa gtgcaaagga gaagtgggtt catgaaatgt 200
tctaattgtat aataacattt accttcagcc tcccatcaga atggaacgag 250
ttttgagtaa tccaggaagt atatctatat gatcttgata ttgttttata 300
taatttgaag tctaaaagac tgcattttta aacaagttag tattaatgcg 350
ttggcccacg tagcaaaaag atatttgatt atcttaaaaa ttgttaaata 400
ccgttttcat gaaagttctc agtattgtaa cagcaacttg tcaaacctaa 450
gcataattga atatgatctc ccataatttg aaattgaaat cgtattgtgt 500
ggaggaaatg gcaatcttat gtgtgctgaa ggacacagta agagcaccaa 550
gttgtgcccc acttgc 566

<210> 39
<211> 264
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 84-85, 206
<223> unknown base

<400> 39
atgattattc tgttacttgt atttattgtt cagttttatg gtatcttgcg 50
cttgtttagc ccctgaaacc aggagcaaca gggncagct tcctggaggt 100
tggttggcaa caatcacggc caagtgactc cgcaaatgac atcccagaga 150
aatcctaaac tgctgtgggt tccgaagtgt taacccaaat gacacctgtc 200

tggctngctg tgttaaaagt gaccactcgt gctcgccatg tgctccaatc 250
 ataggagaat atgc 264
 <210> 40
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 40
 acccacgtct gcgttgctgc c 21
 <210> 41
 <211> 18
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 41
 gagaatatgc tggagagg 18
 <210> 42
 <211> 24
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 42
 aggaatgcac taggattcgc gcgg 24
 <210> 43
 <211> 45
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 43
 ggcccaaaag gcaaggacaa agcagctgtc agggaaacctc cgccg 45
 <210> 44
 <211> 2061
 <212> DNA
 <213> Homo sapiens
 <400> 44
 cagtcacat gaagctgggc tgtgtcctca tggcctgggc cctctacctt 50
 toccttgggtg tgctctgggt ggcccagatg ctactggctg ccagttttga 100

gacgctgcag tgtgagggac ctgtctgcac tgaggagagc agctgccaca 150
 cggaggatga cttgactgat gcaaggggaag ctggcttcca ggtcaaggcc 200
 tacactttca gtgaaccctt ccacctgatt gtgtcctatg actggctgat 250
 cctccaaggt ccagccaagc cagtttttga aggggacctg ctggttctgc 300
 gctgccaggc ctggcaagac tggccactga ctcaggtgac cttctaccga 350
 gatggctcag ctctgggtcc ccccgggcct aacaggggaat tctccatcac 400
 cgtggtacaa aaggcagaca gcgggcacta ccactgcagt ggcatcttcc 450
 agagccctgg tcctgggatc ccagaaacag catctgttgt ggctatcaca 500
 gtccaagaac tgtttccagc gccaatcttc agagctgtac ctcagctga 550
 accccaagca ggaagcccca tgacctgag ttgtcagaca aagttgcccc 600
 tgcagaggtc agctgcccgc ctctcttct cttctacaa ggatggaagg 650
 atagtcaaaa gcagggggct ctctcagaa ttccagatcc ccacagcttc 700
 agaagatcac tccgggtcat actggtgtga ggcagccact gaggacaacc 750
 aagtttgaa acagagcccc cagctagaga tcagagtga gggtgcttcc 800
 agctctgctg cacctccac attgaatcca gctcctcaga aatcagctgc 850
 tccaggaact gctcctgagg aggccctgg gcctctgcct ccgccgcaa 900
 ccccatcttc tgaggatcca ggcttttctt ctctctggg gatgccagat 950
 cctcatctgt atcaccagat gggccttctt ctcaaacaca tgcaggatgt 1000
 gagagtcctc ctcggtcacc tgctcatgga gttgagggaa ttatctggcc 1050
 accagaagcc tgggaccaca aaggctactg ctgaatagaa gtaaacagtt 1100
 catccatgat ctcaactaac caccocaata aatctgattc tttattttct 1150
 cttcctgtcc tgcacatatg cataagtact tttacaagtt gtcccagtgt 1200
 tttgttagaa taatgtagtt aggtgagtgt aaataaattt atataaagt 1250
 agaattagag tttagctata attgtgtatt ctctcttaac acaacagaat 1300
 tctgctgtct agatcaggaa tttctatctg ttatatcgac cagaatgttg 1350
 tgatttaaag agaactaatg gaagtggatt gaatacagca gtctcaactg 1400
 ggggcaattt tgccccccag aggacattgg gcaatgtttg gagacatttt 1450
 ggtcattata cttggggggg tgggggatgg tgggatgtgt gtctactggc 1500
 atccagtaaa tagaagccag gggtgccgct aaacatccta taatgcacag 1550

Gly	Pro	Gly	Ile	Pro	Glu	Thr	Ala	Ser	Val	Val	Ala	Ile	Thr	Val	155	160	165
Gln	Glu	Leu	Phe	Pro	Ala	Pro	Ile	Leu	Arg	Ala	Val	Pro	Ser	Ala	170	175	180
Glu	Pro	Gln	Ala	Gly	Ser	Pro	Met	Thr	Leu	Ser	Cys	Gln	Thr	Lys	185	190	195
Leu	Pro	Leu	Gln	Arg	Ser	Ala	Ala	Arg	Leu	Leu	Phe	Ser	Phe	Tyr	200	205	210
Lys	Asp	Gly	Arg	Ile	Val	Gln	Ser	Arg	Gly	Leu	Ser	Ser	Glu	Phe	215	220	225
Gln	Ile	Pro	Thr	Ala	Ser	Glu	Asp	His	Ser	Gly	Ser	Tyr	Trp	Cys	230	235	240
Glu	Ala	Ala	Thr	Glu	Asp	Asn	Gln	Val	Trp	Lys	Gln	Ser	Pro	Gln	245	250	255
Leu	Glu	Ile	Arg	Val	Gln	Gly	Ala	Ser	Ser	Ser	Ala	Ala	Pro	Pro	260	265	270
Thr	Leu	Asn	Pro	Ala	Pro	Gln	Lys	Ser	Ala	Ala	Pro	Gly	Thr	Ala	275	280	285
Pro	Glu	Glu	Ala	Pro	Gly	Pro	Leu	Pro	Pro	Pro	Pro	Thr	Pro	Ser	290	295	300
Ser	Glu	Asp	Pro	Gly	Phe	Ser	Ser	Pro	Leu	Gly	Met	Pro	Asp	Pro	305	310	315
His	Leu	Tyr	His	Gln	Met	Gly	Leu	Leu	Leu	Lys	His	Met	Gln	Asp	320	325	330
Val	Arg	Val	Leu	Leu	Gly	His	Leu	Leu	Met	Glu	Leu	Arg	Glu	Leu	335	340	345
Ser	Gly	His	Gln	Lys	Pro	Gly	Thr	Thr	Lys	Ala	Thr	Ala	Glu		350	355	

<210> 46

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 46

tgggctgtgt cctcatgg 18

<210> 47

<211> 18

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
tttccagcgc caattctc 18

<210> 48
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 48
agttcttgga ctgtgatagc cac 23

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 49
aaacttggtt gtcctcagtg gctg 24

<210> 50
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 50
gtgagggacc tgtctgcact gaggagagca gctgccacac ggagg 45

<210> 51
<211> 2181
<212> DNA
<213> Homo sapiens

<400> 51
cccacgcgtc cgcccacgcg tccgcccacg ggtccgcca cgcgtccggg 50
ccaccagaag tttgagcctc tttggtagca ggaggctgga agaaaggaca 100
gaagtagctc tggctgtgat ggggatctta ctgggcctgc tactcctggg 150
gcacctaaaca gtggacactt atggccgtcc catcctggaa gtgccagaga 200
gtgtaacagg accttggaag ggggatgtga atcttccctg cacctatgac 250
cccctgcaag gctacacca agtcttggtg aagtggctgg tacaacgtgg 300
ctcagaccct gtcaccatct ttctacgtga ctcttctgga gaccatatcc 350

agcaggcaaa gtaccagggc cgcctgcatg tgagccacaa ggttccagga 400
 gatgtatccc tccaattgag caccctggag atggatgacc ggagccacta 450
 cacgtgtgaa gtcacctggc agactcctga tggcaaccaa gtcgtgagag 500
 ataagattac tgagctcctg gtccagaaac tctctgtctc caagcccaca 550
 gtgacaactg gcagcgggta tggcttcacg gtgccccagg gaatgaggat 600
 tagccttcaa tgccaggctc ggggttctcc tcccatcagt tatatttggt 650
 ataagcaaca gactaataac caggaacca tcaaagtagc aaccctaagt 700
 acccttactct tcaagcctgc ggtgatagcc gactcaggct cctatttctg 750
 cactgccaaag ggccagggtg gctctgagca gcacagcgac attgtgaagt 800
 ttgtgggtcaa agactcctca aagctactca agaccaagac tgaggcacct 850
 acaaccatga catacccctt gaaagcaaca tctacagtga agcagtcctg 900
 ggactggacc actgacatgg atggctacct tggagagacc agtgctgggc 950
 caggaaagag cctgcctgtc tttgccatca tctcatcat ctccttgtgc 1000
 tgtatggtgg tttttaccat ggcctatata atgctctgtc ggaagacata 1050
 ccaacaagag catgtctacg aagcagccag gtaagaaagt ctctcctctt 1100
 ccatttttga ccccgctcct gccctcaatt ttgattactg gcaggaaatg 1150
 tggaggaagg ggggtgtggc acagacccaa tcctaaggcc ggaggccttc 1200
 agggtcagga catagctgcc ttccctctct caggcacctt ctgagggttg 1250
 tttggccctc tgaacacaaa ggataattta gatccatctg ccttctgctt 1300
 ccagaatccc tgggtggtag gatcctgata attaattggc aagaattgag 1350
 gcagaagggg gggaaaccag gaccacagcc ccaagtcctt tcttatgggt 1400
 ggtgggctct tgggcatag ggcacatgcc agagaggcca acgactctgg 1450
 agaaaccatg aggggtggcca tcttcgcaag tggctgctcc agtgatgagc 1500
 caacttccca gaatctgggc aacaactact ctgatgagcc ctgcatagga 1550
 caggagtacc agatcatcgc ccagatcaat ggcaactacg cccgcctgct 1600
 ggacacagtt cctctggatt atgagtttct ggccactgag ggcaaaagt 1650
 tctgttaaaa atgccccatt aggccaggat ctgctgacat aattgcctag 1700
 tcagtccttg ccttctgcat ggccttcttc cctgctacct ctcttcctgg 1750
 atagcccaaa gtgtccgcct accaactctg gagccgctgg ggtcactgg 1800

ctttgccctg gaatttgcca gatgcatctc aagtaagcca gctgctggat 1850
 ttggctctgg gcccttctag tatctctgcc gggggcttct ggtactcctc 1900
 tctaaatacc agagggaaga tgcccatagc actaggactt ggtcatcatg 1950
 cctacagaca ctattcaact ttggcatctt gccaccagaa gacccgaggg 2000
 aggctcagct ctgccagctc agaggaccag ctatatccag gatcatttct 2050
 ctttcttcag ggccagacag cttttaattg aaattgttat ttcacaggcc 2100
 agggttcagt tctgctcctc cactataagt ctaatgttct gactctctcc 2150
 tggtgctcaa taaatatcta atcataacag c 2181

<210> 52
 <211> 321
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Gly Ile Leu Leu Gly Leu Leu Leu Leu Gly His Leu Thr Val
 1 5 10 15
 Asp Thr Tyr Gly Arg Pro Ile Leu Glu Val Pro Glu Ser Val Thr
 20 25 30
 Gly Pro Trp Lys Gly Asp Val Asn Leu Pro Cys Thr Tyr Asp Pro
 35 40 45
 Leu Gln Gly Tyr Thr Gln Val Leu Val Lys Trp Leu Val Gln Arg
 50 55 60
 Gly Ser Asp Pro Val Thr Ile Phe Leu Arg Asp Ser Ser Gly Asp
 65 70 75
 His Ile Gln Gln Ala Lys Tyr Gln Gly Arg Leu His Val Ser His
 80 85 90
 Lys Val Pro Gly Asp Val Ser Leu Gln Leu Ser Thr Leu Glu Met
 95 100 105
 Asp Asp Arg Ser His Tyr Thr Cys Glu Val Thr Trp Gln Thr Pro
 110 115 120
 Asp Gly Asn Gln Val Val Arg Asp Lys Ile Thr Glu Leu Arg Val
 125 130 135
 Gln Lys Leu Ser Val Ser Lys Pro Thr Val Thr Thr Gly Ser Gly
 140 145 150
 Tyr Gly Phe Thr Val Pro Gln Gly Met Arg Ile Ser Leu Gln Cys
 155 160 165
 Gln Ala Arg Gly Ser Pro Pro Ile Ser Tyr Ile Trp Tyr Lys Gln
 170 175 180

Gln Thr Asn Asn	Gln Glu Pro Ile Lys	Val Ala Thr Leu Ser Thr
185	190	195
Leu Leu Phe Lys	Pro Ala Val Ile Ala	Asp Ser Gly Ser Tyr Phe
200	205	210
Cys Thr Ala Lys	Gly Gln Val Gly Ser	Glu Gln His Ser Asp Ile
215	220	225
Val Lys Phe Val	Val Lys Asp Ser Ser	Lys Leu Leu Lys Thr Lys
230	235	240
Thr Glu Ala Pro	Thr Thr Met Thr Tyr	Pro Leu Lys Ala Thr Ser
245	250	255
Thr Val Lys Gln	Ser Trp Asp Trp Thr	Thr Asp Met Asp Gly Tyr
260	265	270
Leu Gly Glu Thr	Ser Ala Gly Pro Gly	Lys Ser Leu Pro Val Phe
275	280	285
Ala Ile Ile Leu	Ile Ile Ser Leu Cys	Cys Met Val Val Phe Thr
290	295	300
Met Ala Tyr Ile	Met Leu Cys Arg Lys	Thr Ser Gln Gln Glu His
305	310	315
Val Tyr Glu Ala	Ala Arg	
320		

<210> 53
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 53
 tatccctcca attgagcacc ctgg 24

<210> 54
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 54
 gtcggaagac atcccaacaa g 21

<210> 55
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 55

cttcacaatg tcgctgtgct gctc 24

<210> 56

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 56

agccaaatcc agcagctggc ttac 24

<210> 57

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 57

tggatgaccg gagccactac acgtgtgaag tcacctggca gactcctgat 50

<210> 58

<211> 2458

<212> DNA

<213> Homo sapiens

<400> 58

gcgcggggag cccatctgcc ccaggggca cggggcgcg ggccggctcc 50

cgcccggcac atggctgcag ccacctcgcg cgcacccga ggcgccgcgc 100

ccagctogcc cgaggctcgt cggaggcgcc cggccgccc ggagccaagc 150

agcaactgag cggggaagcg cccgcgtccg gggatcgga tgtccctoct 200

ccttctoctc ttgctagttt cctactatgt tggaaacctg gggactcaca 250

ctgagatcaa gagagtggca gagaaaagg tcactttgcc ctgccaccat 300

caactggggc ttccagaaaa agacactctg gatattgaat ggctgctcac 350

cgataatgaa gggaaccaa aagtggatgat cacttactcc agtcgtcatg 400

tctacaataa cttgactgag gaacagaagg gccgagtggc ctttgcttcc 450

aatttctctg caggagatgc ctcttgcag attgaacctc tgaagcccag 500

tgatgagggc cggtagacct gtaagggtta gaattcagg cgctacgtgt 550

ggagccatgt catcttaaaa gtcttagtga gaccatccaa gcccaagtgt 600

gagttggaag gagagctgac agaaggaagt gacctgactt tgcagtgtga 650

gtcatcctct ggcacagagc ccattgtgta ttactggcag cgaatccgag 700
 agaaagaggg agaggatgaa cgtctgcctc ccaaactag gattgactac 750
 aaccaccctg gacgagttct gctgcagaat cttaccatgt cctactctgg 800
 actgtaccag tgcacagcag gcaacgaagc tgggaaggaa agctgtgtgg 850
 tgcgagtaac tgtacagtat gtacaaagca tcggcatggg tgcaggagca 900
 gtgacaggca tagtggctgg agccctgctg attttctct tgggtgtggct 950
 gctaataccga aggaaagaca aagaaagata tgaggaagaa gagagaccta 1000
 atgaaattcg agaagatgct gaagctccaa aagcccgtct tgtgaaaccc 1050
 agctcctctt cctcaggctc tcggagctca cgctctgggt cttcctccac 1100
 tcgctccaca gcaaatagtg cctcacgcag ccagcggaca ctgtcaactg 1150
 acgcagcacc ccagccaggg ctggccaccc aggcatacag cctagtgggg 1200
 ccagaggtga gaggttctga accaaagaaa gtccaccatg ctaatctgac 1250
 caaagcagaa accacacca gcatgatccc cagccagagc agagccttcc 1300
 aaacggtctg aattacaatg gacttgactc ccacgctttc ctaggagtca 1350
 gggcttttgg actcttctcg tcattggagc tcaagtcacc agccacacaa 1400
 ccagatgaga ggtcatctaa gtagcagtga gcattgcacg gaacagattc 1450
 agatgagcat tttccttata caataccaaa caagcaaaag gatgtaagct 1500
 gattcatctg taaaaaggca tcttattgtg ccttttagacc agagtaaggg 1550
 aaagcaggag tccaaatcta tttgttgacc aggacctgtg gtgagaaggt 1600
 tggggaaagg tgaggatgaat atacctaaaa cttttaatgt gggatatttt 1650
 gtatcagtgc tttgattcac aattttcaag aggaaatggg atgctgtttg 1700
 taaattttct atgcatttct gcaaacttat tggattatta gttattcaga 1750
 cagtcaagca gaaccacag ccttattaca cctgtctaca ccatgtactg 1800
 agctaaccac ttctaagaaa ctccaaaaaa ggaaacatgt gtcttctatt 1850
 ctgacttaac ttcatttgtc ataaggtttg gatattaatt tcaaggggag 1900
 ttgaaatagt gggagatgga gaagagtga tgagtttctc ccactctata 1950
 ctaatctcac tatttgtatt gagcccaaaa taactatgaa aggagacaaa 2000
 aatttgtgac aaaggattgt gaagagcttt ccatcttcat gatgttatga 2050
 ggattgttga caaacattag aaatatataa tggagcaatt gtggatttcc 2100

cctcaaataca gatgcctcta aggactttcc tgctagatat ttctggaagg 2150
 agaaaataca acatgtcatt tatcaacgct cttagaaaga attcttctag 2200
 agaaaaaggg atctaggaat gctgaaagat tacccaacat accattatag 2250
 tctcttcttt ctgagaaaat gtgaaaccag aattgcaaga ctgggtggac 2300
 tagaaagggg gattagatca gttttctctt aatatgtcaa ggaaggtagc 2350
 cgggcatggg gccaggcacc tgtaggaaaa tccagcaggt ggaggttgca 2400
 gtgagccgag attatgccat tgcactccag cctgggtgac agagcgggac 2450
 tccgtctc 2458

<210> 59
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 59
 Met Ser Leu Leu Leu Leu Leu Leu Leu Val Ser Tyr Tyr Val Gly
 1 5 10 15
 Thr Leu Gly Thr His Thr Glu Ile Lys Arg Val Ala Glu Glu Lys
 20 25 30
 Val Thr Leu Pro Cys His His Gln Leu Gly Leu Pro Glu Lys Asp
 35 40 45
 Thr Leu Asp Ile Glu Trp Leu Leu Thr Asp Asn Glu Gly Asn Gln
 50 55 60
 Lys Val Val Ile Thr Tyr Ser Ser Arg His Val Tyr Asn Asn Leu
 65 70 75
 Thr Glu Glu Gln Lys Gly Arg Val Ala Phe Ala Ser Asn Phe Leu
 80 85 90
 Ala Gly Asp Ala Ser Leu Gln Ile Glu Pro Leu Lys Pro Ser Asp
 95 100 105
 Glu Gly Arg Tyr Thr Cys Lys Val Lys Asn Ser Gly Arg Tyr Val
 110 115 120
 Trp Ser His Val Ile Leu Lys Val Leu Val Arg Pro Ser Lys Pro
 125 130 135
 Lys Cys Glu Leu Glu Gly Glu Leu Thr Glu Gly Ser Asp Leu Thr
 140 145 150
 Leu Gln Cys Glu Ser Ser Ser Gly Thr Glu Pro Ile Val Tyr Tyr
 155 160 165
 Trp Gln Arg Ile Arg Glu Lys Glu Gly Glu Asp Glu Arg Leu Pro
 170 175 180

cgtctgtggc acactcccggt ccttctccag ctccacctca cttccccctg 1000
 gcacagccat ctttccacgc cctgagcaca tggaaacca tgaagtcctt 1050
 tcctccactt atgttcccaa aggcatgaac tcaacagaat ccaactcttc 1100
 tgcctctgtt agaccaaagg tactgagtag catccaggaa gggacagtcc 1150
 ctgacaacac aagctcagca agggggaagg aagacgtgaa caagaccctc 1200
 ccaaaccctt aggtagtcaa ccaccagcaa ggccccacc acagacacat 1250
 cctgaagctg ctgccgtcca tggaggccac tgggggagag aagtccagca 1300
 cgcccatcaa gggccccaag aggggacatc ctagacagaa cctacacaag 1350
 cattttgaca tcaatgagca ttggccctgg atgattgtgc ttttctgct 1400
 gctggtgctt gtggtgattg tgggtgtgag tatccgaaa agctcgagga 1450
 ctctgaaaaa ggggccccgg caggatccca gtgccattgt ggaaaaggca 1500
 gggctgaaga aatccatgac tocaaccag aaccgggaga aatggatcta 1550
 ctactgcaat ggccatggtg tcgatatact gaagcttgta gcagccaag 1600
 tgggaagcca gtggaagat atctatcagt ttctttgcaa tgccagttag 1650
 agggaggttg ctgctttctc caatgggtac acagccgacc acgagcgggc 1700
 ctacgcagct ctgcagcact ggaccatccg gggccccgag gccagcctcg 1750
 ccagctaat tagcgccctg cgccagcacc ggagaaacga tgttgaggag 1800
 aagattcgtg ggctgatgga agacaccacc cagctggaaa ctgacaaact 1850
 agctctcccg atgagcccca gcccgcttag ccgagcccc atccccagcc 1900
 ccaacgcgaa acttgagaat tccgctctcc tgacggtgga gccttccca 1950
 caggacaaga acaagggtt cttoctggat gagtcggagc cccttctccg 2000
 ctgtgactct acatccagcg gctcctccgc gctgagcagg aacggttcct 2050
 ttattaccaa agaaaagaag gacacagtgt tgcggcagg acgcctggac 2100
 ccctgtgact tgcagcctat ctttgatgac atgctccact ttctaaatcc 2150
 tgaggagctg cgggtgattg aagagattcc ccaggctgag gacaaactag 2200
 accggctatt cgaaattatt ggagtcaaga gccaggaagc cagccagacc 2250
 ctctggact ctgtttatag ccatcttccg gacctgctgt agaacatagg 2300
 gatactgcat tctggaaatt actcaattta gtggcagggt ggttttttaa 2350
 ttttctctg tttctgattt ttgttggttg ggggtgtgtgt gtgtgtttgt 2400

gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtttaacaga gaatatggcc 2450
 agtgcttgag ttctttctcc ttctctctct ctcttttttt tttaaataac 2500
 tcttctggga agttggttta taagcctttg ccagggtgaa ctgttgtgaa 2550
 ataccacca ctaaagtttt ttaagttcca tttttctcc attttgccct 2600
 cttatgtatt ttcaagatta ttctgtgcac tttaaattta cttaacttac 2650
 cataaatgca gtgtgacttt tcccacacac tggattgtga ggctcttaac 2700
 ttcttaaaag tataatggca tcttgtgaat cctataagca gtctttatgt 2750
 ctcttaacat tcacacctac tttttaaaaa caaatattat tactattttt 2800
 attattgttt gtcttttata aattttctta aagattaaga aaatttaaga 2850
 cccattgag ttactgtaat gcaattcaac tttgagttat cttttaaata 2900
 tgtcttgtat agttcatatt catggctgaa acttgaccac actattgctg 2950
 attgtatggg tttcacctgg acaccgtgta gaatgcttga ttacttgtac 3000
 tcttcttatg ctaatatgct ctgggctgga gaaatgaaat cctcaagcca 3050
 tcaggatttg ctatttaagt ggcttgacaa ctgggccacc aaagaacttg 3100
 aacttcacct tttaggattt gagctgttct ggaacacatt gctgcacttt 3150
 ggaaagtcaa aatcaagtgc cagtggcgcc ctttccatag agaatttgcc 3200
 cagctttgct ttaaaagatg tcttgttttt tatatacaca taatcaatag 3250
 gtccaatctg ctctcaaggc cttggctctg gtgggattcc ttcaccaatt 3300
 actttaatta aaaatggctg caactgtaag aacccttgct tgatatattt 3350
 gcaactatgc tcccatttac aaatgtacct tctaattgct agttgccagg 3400
 ttccaatgca aaggtggcgt ggactccctt tgtgtgggtg gggtttgtgg 3450
 gtagtggtga aggaccgata tcagaaaaat gccttcaagt gtactaattt 3500
 attaataaac attaggtgtt tgttaaaaaa aaaa 3534

<210> 64

<211> 655

<212> PRT

<213> Homo sapiens

<400> 64

Met	Gly	Thr	Ser	Pro	Ser	Ser	Ser	Thr	Ala	Leu	Ala	Ser	Cys	Ser
1				5					10				15	
Arg	Ile	Ala	Arg	Arg	Ala	Thr	Ala	Thr	Met	Ile	Ala	Gly	Ser	Leu
			20					25					30	

320	325	330
Pro Lys Arg Gly His	Pro Arg Gln Asn Leu His Lys His Phe Asp	
335	340	345
Ile Asn Glu His Leu	Pro Trp Met Ile Val Leu Phe Leu Leu Leu	
350	355	360
Val Leu Val Val Ile	Val Val Cys Ser Ile Arg Lys Ser Ser Arg	
365	370	375
Thr Leu Lys Lys Gly	Pro Arg Gln Asp Pro Ser Ala Ile Val Glu	
380	385	390
Lys Ala Gly Leu Lys	Lys Ser Met Thr Pro Thr Gln Asn Arg Glu	
395	400	405
Lys Trp Ile Tyr Tyr	Cys Asn Gly His Gly Ile Asp Ile Leu Lys	
410	415	420
Leu Val Ala Ala Gln	Val Gly Ser Gln Trp Lys Asp Ile Tyr Gln	
425	430	435
Phe Leu Cys Asn Ala	Ser Glu Arg Glu Val Ala Ala Phe Ser Asn	
440	445	450
Gly Tyr Thr Ala Asp	His Glu Arg Ala Tyr Ala Ala Leu Gln His	
455	460	465
Trp Thr Ile Arg Gly	Pro Glu Ala Ser Leu Ala Gln Leu Ile Ser	
470	475	480
Ala Leu Arg Gln His	Arg Arg Asn Asp Val Val Glu Lys Ile Arg	
485	490	495
Gly Leu Met Glu Asp	Thr Thr Gln Leu Glu Thr Asp Lys Leu Ala	
500	505	510
Leu Pro Met Ser Pro	Ser Pro Leu Ser Pro Ser Pro Ile Pro Ser	
515	520	525
Pro Asn Ala Lys Leu	Glu Asn Ser Ala Leu Leu Thr Val Glu Pro	
530	535	540
Ser Pro Gln Asp Lys	Asn Lys Gly Phe Phe Val Asp Glu Ser Glu	
545	550	555
Pro Leu Leu Arg Cys	Asp Ser Thr Ser Ser Gly Ser Ser Ala Leu	
560	565	570
Ser Arg Asn Gly Ser	Phe Ile Thr Lys Glu Lys Lys Asp Thr Val	
575	580	585
Leu Arg Gln Val Arg	Leu Asp Pro Cys Asp Leu Gln Pro Ile Phe	
590	595	600
Asp Asp Met Leu His	Phe Leu Asn Pro Glu Glu Leu Arg Val Ile	
605	610	615

Glu	Glu	Ile	Pro	Gln	Ala	Glu	Asp	Lys	Leu	Asp	Arg	Leu	Phe	Glu
				620					625					630
Ile	Ile	Gly	Val	Lys	Ser	Gln	Glu	Ala	Ser	Gln	Thr	Leu	Leu	Asp
				635					640					645
Ser	Val	Tyr	Ser	His	Leu	Pro	Asp	Leu	Leu					
				650				655						

<210> 65
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 65
 gtagcagtgc acatggggtg ttgg 24

<210> 66
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 66
 accgcacatc ctcagtctct gtcc 24

<210> 67
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 67
 acgatgatcg cgggctccct tctcctgctt ggattcctta gcaccaccac 50

<210> 68
 <211> 2412
 <212> DNA
 <213> Homo sapiens

<400> 68
 atgggaagcc agtaacactg tggcctacta tctcttccgt ggtgccatct 50
 acatttttgg gactcgggaa ttatgagga gaggtggagg cggagccgga 100
 tgtcagaggt cctgaaatag tcaccatggg ggaaaatgat ccgcctgctg 150
 ttgaagcccc cttctcattc cgatcgcttt ttggccttga tgatttgaaa 200
 ataagtctg ttgcaccaga tgcagatgct gttgctgcac agatcctgtc 250

actgctgcca ttgaagtttt ttccaatcat cgtcattggg atcattgcat 300
tgatattagc actggccatt ggtctgggca tccacttcga ctgctcaggg 350
aagtacagat gtcgctcatc ctttaagtgt atcgagctga tagctcgatg 400
tgacggagtc tcggattgca aagacgggga ggacgagtac cgctgtgtcc 450
gggtgggtgg tcagaatgcc gtgctccagg tgttcacagc tgcttcgtgg 500
aagaccatgt gctccgatga ctggaagggg cactacgcaa atgttgctg 550
tgcccaactg ggtttcccaa gctatgtgag ttcagataac ctcagagtga 600
gctcgctgga ggggcagttc cgggaggagt ttgtgtccat cgatcacctc 650
ttgccagatg acaaggtgac tgcattacac cactcagtat atgtgaggga 700
gggatgtgcc tctggccacg tggttacctt gcagtgcaca gcctgtggtc 750
atagaagggg ctacagctca cgcacgtgg gtggaacat gtccttgctc 800
tcgcagtggc cctggcaggc cagccttcag ttccagggt accacctgtg 850
cgggggctct gtcacacgc ccctgtggat catcactgct gcacactgtg 900
tttatgactt gtacctcccc aagtcattga ccatccaggg gggcttagtt 950
tccctgttgg acaatccagc cccatccac ttggtggaga agattgtcta 1000
ccacagcaag tacaagccaa agaggctggg caatgacatc gcccttatga 1050
agctggccgg gccactcacg ttcaatgaaa tgatccagcc tgtgtgcctg 1100
cccaactctg aagagaactt cccgatgga aaagtgtgct ggacgtcagg 1150
atggggggcc acagaggatg gaggtgacgc ctcccctgtc ctgaaccacg 1200
cggccgtccc tttgatttcc aacaagatct gcaaccacag ggacgtgtac 1250
ggtggcatca tctccccctc catgctctgc gcgggctacc tgacgggtgg 1300
cgtggacagc tgccaggggg acagcggggg gccctggtg tgtcaagaga 1350
ggaggctgtg gaagttagtg ggagcgacca gctttggcat cggctgcgca 1400
gaggtgaaca agcctggggg gtacaccctg gtcacctcct tcctggactg 1450
gatccacgag cagatggaga gagacctaaa aacctgaaga ggaaggggac 1500
aagtagccac ctgagttcct gaggtgatga agacagcccg atcctcccct 1550
ggactcccgt gtaggaacct gcacacgagc agacaccctt ggagctctga 1600
gttccggcac cagtagcagg ccgaaagag gcacccttcc atctgattcc 1650
agcacaacct tcaagctgct ttttgttttt tgtttttttg aggtggagtc 1700

tcgctctgtt gccaggtg gagtgcagt gcgaaatccc tgctcactgc 1750
 agcctccgct tccctgggtc aagcgattct cttgcctcag cttccccagt 1800
 agctgggacc acaggtgccc gccaccacac ccaactaatt tttgtatttt 1850
 tagtagagac agggtttcac catgttggcc aggctgctct caaacccctg 1900
 acctcaaagt atgtgcctgc ttcagcctcc cacagtgcgt ggattacagg 1950
 catggggccac cagcctagc ctcacgtcc tttctgatct tcactaagaa 2000
 caaaagaagc agcaacttgc aagggcggcc tttcccactg gtccatctgg 2050
 ttttctctcc agggctttgc aaaattcctg acgagataag cagttatgtg 2100
 acctcacgtg caaagccacc aacagccact cagaaaagac gcaccagccc 2150
 agaagtgcag aactgcagtc actgcacgtt ttcattctcta gggaccagaa 2200
 ccaaaccac cctttctact tccaagactt attttcacat gtggggaggt 2250
 taatctagga atgactcgtt taaggcctat tttcatgatt tctttgtagc 2300
 atttggtgct tgacgtatta ttgtccttg attccaaata atatgtttcc 2350
 ttccctcatt gtctggcgtg tctgcgtgga ctggtgacgt gaatcaaaat 2400
 catccactga aa 2412

<210> 69

<211> 453

<212> PRT

<213> Homo sapiens

<400> 69

Met	Gly	Glu	Asn	Asp	Pro	Pro	Ala	Val	Glu	Ala	Pro	Phe	Ser	Phe
1				5					10					15
Arg	Ser	Leu	Phe	Gly	Leu	Asp	Asp	Leu	Lys	Ile	Ser	Pro	Val	Ala
				20					25					30
Pro	Asp	Ala	Asp	Ala	Val	Ala	Ala	Gln	Ile	Leu	Ser	Leu	Leu	Pro
				35					40					45
Leu	Lys	Phe	Phe	Pro	Ile	Ile	Val	Ile	Gly	Ile	Ile	Ala	Leu	Ile
				50					55					60
Leu	Ala	Leu	Ala	Ile	Gly	Leu	Gly	Ile	His	Phe	Asp	Cys	Ser	Gly
				65					70					75
Lys	Tyr	Arg	Cys	Arg	Ser	Ser	Phe	Lys	Cys	Ile	Glu	Leu	Ile	Ala
				80					85					90
Arg	Cys	Asp	Gly	Val	Ser	Asp	Cys	Lys	Asp	Gly	Glu	Asp	Glu	Tyr
				95					100					105
Arg	Cys	Val	Arg	Val	Gly	Gly	Gln	Asn	Ala	Val	Leu	Gln	Val	Phe

	110		115		120
Thr Ala Ala Ser	Trp Lys Thr Met Cys	Ser Asp Asp Trp Lys Gly			
	125	130			135
His Tyr Ala Asn	Val Ala Cys Ala Gln	Leu Gly Phe Pro Ser Tyr			
	140	145			150
Val Ser Ser Asp	Asn Leu Arg Val Ser	Ser Leu Glu Gly Gln Phe			
	155	160			165
Arg Glu Glu Phe	Val Ser Ile Asp His	Leu Leu Pro Asp Asp Lys			
	170	175			180
Val Thr Ala Leu	His His Ser Val Tyr	Val Arg Glu Gly Cys Ala			
	185	190			195
Ser Gly His Val	Val Thr Leu Gln Cys	Thr Ala Cys Gly His Arg			
	200	205			210
Arg Gly Tyr Ser	Ser Arg Ile Val Gly	Gly Asn Met Ser Leu Leu			
	215	220			225
Ser Gln Trp Pro	Trp Gln Ala Ser Leu	Gln Phe Gln Gly Tyr His			
	230	235			240
Leu Cys Gly Gly	Ser Val Ile Thr Pro	Leu Trp Ile Ile Thr Ala			
	245	250			255
Ala His Cys Val	Tyr Asp Leu Tyr Leu	Pro Lys Ser Trp Thr Ile			
	260	265			270
Gln Val Gly Leu	Val Ser Leu Leu Asp	Asn Pro Ala Pro Ser His			
	275	280			285
Leu Val Glu Lys	Ile Val Tyr His Ser	Lys Tyr Lys Pro Lys Arg			
	290	295			300
Leu Gly Asn Asp	Ile Ala Leu Met Lys	Leu Ala Gly Pro Leu Thr			
	305	310			315
Phe Asn Glu Met	Ile Gln Pro Val Cys	Leu Pro Asn Ser Glu Glu			
	320	325			330
Asn Phe Pro Asp	Gly Lys Val Cys Trp	Thr Ser Gly Trp Gly Ala			
	335	340			345
Thr Glu Asp Gly	Gly Asp Ala Ser Pro	Val Leu Asn His Ala Ala			
	350	355			360
Val Pro Leu Ile	Ser Asn Lys Ile Cys	Asn His Arg Asp Val Tyr			
	365	370			375
Gly Gly Ile Ile	Ser Pro Ser Met Leu	Cys Ala Gly Tyr Leu Thr			
	380	385			390
Gly Gly Val Asp	Ser Cys Gln Gly Asp	Ser Gly Gly Pro Leu Val			
	395	400			405

Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr Ser Phe
410 415 420

Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr Arg
425 430 435

Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp
440 445 450

Leu Lys Thr

<210> 70
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
tgacatcgcc cttatgaagc tggc 24

<210> 71
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 71
tacacgtccc tgtggttgca gatc 24

<210> 72
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
cgttcaatgc agaaatgata cagcctgtgt gcctgcccac ctctgaagag 50

<210> 73
<211> 3305
<212> DNA
<213> Homo sapiens

<400> 73
cccacgcgtc cgtcctagtc cccggggccaa ctcggacagt ttgctcattt 50
attgcaacgg tcaaggctgg cttgtgccag aacggcgcg cgcgcgcac 100
gcacgcacac acacgggggg aaactttttt aaaaatgaaa ggctagaaga 150
gctcagcggc ggcgcggggc ctgcgcgagg gctccggagc tgactcgccg 200

aggcaggaaa tccctccggt cgcgacgccc ggccccggct cggcgcccg 250
 gtgggatggt gcagcgctcg ccgcccggcc cgagagctgc tgactgaag 300
 gccggcgacg atggcagcgc gcccgctgcc cgtgtcccc gcccgcgccc 350
 tcctgctcgc cctggccggt gctctgctcg cgccctgcga ggcccgagg 400
 gtgagcttat ggaaccaagg aagagctgat gaagttgtca gtgcctctgt 450
 tcggagtggg gacctctgga tcccagtga gagcttcgac tccaagaatc 500
 atccagaagt gctgaatatt cgactacaac gggaaagcaa agaactgatc 550
 ataatctgg aaagaaatga aggtctcatt gccagcagtt tcacggaaac 600
 ccactatctg caagacggta ctgatgtctc cctcgctcga aattacacgg 650
 gtcactgtta ctacatgga catgtacggg gatattctga ttcagcagtc 700
 agtctcagca cgtgttctgg tctcagggga cttattgtgt ttgaaaatga 750
 aagctatgtc ttagaaccaa tgaaaagtgc aaccaacaga taaaaactct 800
 tcccagcgaa gaagctgaaa agcgtccggg gatcatgtgg atcacatcac 850
 aacacaccaa acctcgctgc aaagaatgtg tttccaccac cctctcagac 900
 atgggcaaga aggcataaaa gagagaccct caaggcaact aagtatgtgg 950
 agctggtgat cgtggcagac aaccgagagt ttcagaggca aggaaaagat 1000
 ctggaaaaag ttaagcagcg attaataagag attgctaadc acgttgacaa 1050
 gttttacaga ccactgaaca ttcggatcgt gttggtaggc gtggaagtgt 1100
 ggaatgacat ggacaaatgc tctgtaagtc aggaccatt caccagcctc 1150
 catgaatttc tggactggag gaagatgaag cttctacctc gcaaatccca 1200
 tgacaatgcg cagcttgtca gtgggggttta tttccaagg accaccatcg 1250
 gcatggcccc aatcatgagc atgtgcacgg cagaccagtc tgggggaatt 1300
 gtcattggacc attcagacaa tccccttggg gcagccgtga ccctggcaca 1350
 tgagctgggc cacaatttcg ggatgaatca tgacacactg gacaggggct 1400
 gtactgtca aatggcggtt gagaaaggag gctgcatcat gaacgcttcc 1450
 accgggtacc catttcccat ggtgttcagc agttgcagca ggaaggactt 1500
 ggagaccagc ctggagaaaag gaatgggggt gtgcctgttt aacctgccgg 1550
 aagtcaggga gtctttcggg ggccagaagt gtgggaacag atttgtggaa 1600
 gaaggagagg agtgtgactg tggggagcca gaggaatgta tgaatcgctg 1650

ctgcaatgcc accacctgta cctgaagcc ggacgtgtg tgcgcacatg 1700
ggctgtgctg tgaagactgc cagctgaagc ctgcaggaac agcgtgcagg 1750
gactccagca actcctgtga cctcccagag ttctgcacag gggccagccc 1800
tcactgcccga gccaatgtgt acctgcacga tgggcactca tgtcaggatg 1850
tggacggcta ctgctacaat ggcattctgcc agactcacga gcagcagtgt 1900
gtcacgctct ggggaccagg tgctaaacct gcccctggga tctgctttga 1950
gagagtcaat tctgcagggtg atccttatgg caactgtggc aaagtctcga 2000
agagttcctt tgccaaatgc gagatgagag atgctaaatg tggaaaaatc 2050
cagtgtcaag gaggtgccag ccggccagtc attggtacca atgccgtttc 2100
catagaaaca aacatccctc tgcagcaagg aggccggatt ctgtgccggg 2150
ggaccacagt gtacttgggc gatgacatgc cggaccagg gcttgtgctt 2200
gcaggcacia agtgtgcaga tggaaaaatc tgcctgaatc gtcaatgtca 2250
aaatattagt gtctttgggg ttacagagtg tgcaatgcag tgccacggca 2300
gaggggtgtg caacaacagg aagaactgcc actgcgaggc ccactgggca 2350
cctcccttct gtgacaagtt tggttttggga ggaagcacag acagcggccc 2400
catccggcaa gcagaagcaa ggcaggaagc tgcagagtcc aacagggagc 2450
gcggccaggg ccaggagccc gtgggatcgc aggagcatgc gtctactgcc 2500
tcactgacac tcattctgagc cctcccatga catggagacc gtgaccagt 2550
ctgctgcaga ggaggtcacg cgtccccaag gcctcctgtg actggcagca 2600
ttgactctgt ggctttgcca tcgtttccat gacaacagac acaacacagt 2650
tctcggggct caggagggga agtccagcct accaggcacg tctgcagaaa 2700
cagtgcaggg aagggcagcg acttctctgt tgagcttctg ctaaaacatg 2750
gacatgcttc agtgctgctc ctgagagagt agcaggttac cactctggca 2800
ggccccagcc ctgcagcaag gaggaagagg actcaaaagt ctggcctttc 2850
actgagcctc cacagcagtg ggggagaagc aagggttggg ccagtggtcc 2900
cctttcccca gtgacacctc agccttggca gccctgatga ctggtctctg 2950
gtgcaactt aatgctctga tatggctttt agcatttatt atatgaaaat 3000
agcagggttt tagtttttaa tttatcagag accctgccac ccattccatc 3050
tccatccaag caaactgaat ggcaatgaaa caaactggag aagaaggtag 3100

gagaaagggc ggtgaactct ggctctttgc tgtggacatg cgtgaccagc 3150
 agtactcagg tttgaggggtt tgcagaaagc caggggaaccc acagagtcac 3200
 caacccttca ttttaacaagt aagaatgtta aaaagtgaaa acaatgtaag 3250
 agcctaactc catcccccggt ggccattact gcataaaata gagtgcattt 3300
 gaaat 3305

<210> 74
 <211> 735
 <212> PRT
 <213> Homo sapiens

<400> 74
 Met Ala Ala Arg Pro Leu Pro Val Ser Pro Ala Arg Ala Leu Leu
 1 5 10 15
 Leu Ala Leu Ala Gly Ala Leu Leu Ala Pro Cys Glu Ala Arg Gly
 20 25 30
 Val Ser Leu Trp Asn Gln Gly Arg Ala Asp Glu Val Val Ser Ala
 35 40 45
 Ser Val Arg Ser Gly Asp Leu Trp Ile Pro Val Lys Ser Phe Asp
 50 55 60
 Ser Lys Asn His Pro Glu Val Leu Asn Ile Arg Leu Gln Arg Glu
 65 70 75
 Ser Lys Glu Leu Ile Ile Asn Leu Glu Arg Asn Glu Gly Leu Ile
 80 85 90
 Ala Ser Ser Phe Thr Glu Thr His Tyr Leu Gln Asp Gly Thr Asp
 95 100 105
 Val Ser Leu Ala Arg Asn Tyr Thr Gly His Cys Tyr Tyr His Gly
 110 115 120
 His Val Arg Gly Tyr Ser Asp Ser Ala Val Ser Leu Ser Thr Cys
 125 130 135
 Ser Gly Leu Arg Gly Leu Ile Val Phe Glu Asn Glu Ser Tyr Val
 140 145 150
 Leu Glu Pro Met Lys Ser Ala Thr Asn Arg Tyr Lys Leu Phe Pro
 155 160 165
 Ala Lys Lys Leu Lys Ser Val Arg Gly Ser Cys Gly Ser His His
 170 175 180
 Asn Thr Pro Asn Leu Ala Ala Lys Asn Val Phe Pro Pro Pro Ser
 185 190 195
 Gln Thr Trp Ala Arg Arg His Lys Arg Glu Thr Leu Lys Ala Thr
 200 205 210

500					505					510				
Cys	Gln	Asp	Val	Asp	Gly	Tyr	Cys	Tyr	Asn	Gly	Ile	Cys	Gln	Thr
				515					520					525
His	Glu	Gln	Gln	Cys	Val	Thr	Leu	Trp	Gly	Pro	Gly	Ala	Lys	Pro
				530					535					540
Ala	Pro	Gly	Ile	Cys	Phe	Glu	Arg	Val	Asn	Ser	Ala	Gly	Asp	Pro
				545					550					555
Tyr	Gly	Asn	Cys	Gly	Lys	Val	Ser	Lys	Ser	Ser	Phe	Ala	Lys	Cys
				560					565					570
Glu	Met	Arg	Asp	Ala	Lys	Cys	Gly	Lys	Ile	Gln	Cys	Gln	Gly	Gly
				575					580					585
Ala	Ser	Arg	Pro	Val	Ile	Gly	Thr	Asn	Ala	Val	Ser	Ile	Glu	Thr
				590					595					600
Asn	Ile	Pro	Leu	Gln	Gln	Gly	Gly	Arg	Ile	Leu	Cys	Arg	Gly	Thr
				605					610					615
His	Val	Tyr	Leu	Gly	Asp	Asp	Met	Pro	Asp	Pro	Gly	Leu	Val	Leu
				620					625					630
Ala	Gly	Thr	Lys	Cys	Ala	Asp	Gly	Lys	Ile	Cys	Leu	Asn	Arg	Gln
				635					640					645
Cys	Gln	Asn	Ile	Ser	Val	Phe	Gly	Val	His	Glu	Cys	Ala	Met	Gln
				650					655					660
Cys	His	Gly	Arg	Gly	Val	Cys	Asn	Asn	Arg	Lys	Asn	Cys	His	Cys
				665					670					675
Glu	Ala	His	Trp	Ala	Pro	Pro	Phe	Cys	Asp	Lys	Phe	Gly	Phe	Gly
				680					685					690
Gly	Ser	Thr	Asp	Ser	Gly	Pro	Ile	Arg	Gln	Ala	Glu	Ala	Arg	Gln
				695					700					705
Glu	Ala	Ala	Glu	Ser	Asn	Arg	Glu	Arg	Gly	Gln	Gly	Gln	Glu	Pro
				710					715					720
Val	Gly	Ser	Gln	Glu	His	Ala	Ser	Thr	Ala	Ser	Leu	Thr	Leu	Ile
				725					730					735

<210> 75

<211> 483

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 30, 94, 143, 156, 163, 179, 193, 369, 371, 381, 390, 473

<223> unknown base

<400> 75

tcccaagget tcttggaagg cagatgattn tgggggtttg cattgtttcc 50
 ctgacaacga aaacaaaaca gttttggggg ttcaggaggg gaantccagc 100
 ctacccagga agtttgcaga aacagtgcaa ggaagggcag ganttcctgg 150
 ttgagntttt tgntaaaaca tggacatgnt tcagtgtctgc tcntgagaga 200
 gtagcagggtt accacttttg gcaggcccca gccctgcagc aaggaggaag 250
 aggactcaaa agtttggcct ttcactgagc ctccacagca gtgggggaga 300
 agcaagggtt gggcccagtg tcccctttcc ccagtgcacac ctcagccttg 350
 gcagccctga taactggtn ntggctgcaa nttaatgctn tgatatggct 400
 ttttagcattt attatatgaa aatagcaggg ttttagtttt taatttatca 450
 gagaccctgc caoccatcc atntccatcc aag 483

<210> 76
 <211> 27
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe

<400> 76
 gtctcagcac gtgttctggt ctcaggg 27

<210> 77
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 77
 catgagcatg tgcaoggc 18

<210> 78
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 78
 tacctgcacg atgggcac 18

<210> 79
 <211> 18
 <212> DNA
 <213> Artificial Sequence

```

<220>
<223> Synthetic oligonucleotide probe

<400> 79
  cactgggcac ctcccttc 18

<210> 80
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 80
  ctccaggctg gtctccaagt ctttcc 26

<210> 81
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
  tccctggttg actctgcagc ttcc 24

<210> 82
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 82
  cttcgctggg aagagtttg 19

<210> 83
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 83
  gtgcaaccaa cagatacaaa ctcttcccag cgaagaagct gaaaagcgtc 50

<210> 84
<211> 1714
<212> DNA
<213> Homo sapiens

<400> 84
  catcctgcaa catggtgaaa ccacgcctgg ctaattttgt tgtatTTTTTg 50

```


gtagagatgg gatttcaccg tgtagccag gattgtctca atctgacctc 100
 atgatctgcc cgctcggcc tcccaaagtg ctgggattac aggcgagtgc 150
 aaccacaccc ggccacaaac tttttaagaa gttaatgaaa ccataccttt 200
 tacatTTTTa atgacaggaa aatgctcaca ataattgtta acccaaaatt 250
 ctggatacaa aagtacaatc tttactgtgt aaatacatgt atatgtacta 300
 tatgaaaata taccaaatat caataatact tatctctggg taaaaacctc 350
 ttctcatacc ctgtgctaac aacttttaac aaaaaatttg catcactttt 400
 aagaatcaag aaaaatttct gaaggtcata tgggacagaa aaaaaaacca 450
 agggaataat cagccactt gggaaaaaaa gattcgaaat ctgccttttt 500
 atagatttgt aattaataag gtccaggctt tctaagcaac ttaaatgttt 550
 tgtttcgaaa caaagtactt gtctggatgt aggaggaaag ggagtgatgt 600
 cactgccatt atgatgccc ttgaatataa gaccctactt gctatctccc 650
 ctgcaccagc caggagccac ccactctcca gcacactgag cagcaagctg 700
 gacacacggc aactgatcc aaatgggtaa ggggatgggtg gcgatgctca 750
 ttctgggtct gctacttctg gcgctgctcc taccctgca ggtttcttca 800
 tttgttcctt taaccagtat gccggaagct actgcagccg aaaccacaaa 850
 gccctccaac agtgcctac agcctacagc cggctctcctt gtggtcttgc 900
 ttgcccttct acatctctac cattaagagg caggtcaaga aacagctaca 950
 gttctccaac ccatacacta aaaccgaatc caaatgggtgc ctagaagttc 1000
 aatgtggcaa ggaaaaaac caggtcttca tcaaacttac taatttact 1050
 ccttattaac agagaaacgc ttgagagtct caaactggac tggtttaaag 1100
 agcatctgaa ggatttgact agatgataaa tgcctgtact ccagctactt 1150
 tgggaggcct aggccggcgg atcacctgag gtcaggagt ttagactaac 1200
 ctggccaaaa tggtgaaacc ccactgtac taaaaatata aatattgact 1250
 gggcgtggtg gtgagtgcct gtgatccag ctactcaggt ggctgaagca 1300
 ggacaatcac ttgaactcag gaggcagagg ttgcagtgag ctgagatcgc 1350
 gctactgcac tctagcctag cctgggcaac agagtgagac ttcgtctcaa 1400
 aaaaaaaaaa gccaaagtga gtggctcacg cctgtaatcc cggcactttg 1450
 ggaggccgag gtgggcggat cagcagggtca ggagatcaag accatcctgg 1500

<220>
<223> Synthetic oligonucleotide probe

<400> 88
gctccctacc cgtgcagggt tcttcatttg ttcctttaac cagtatgccg 50

<210> 89

<211> 2956

<212> DNA

<213> Homo sapiens

<400> 89

gccgcggcga gagcgcgcc agccccgccg cgatgcccg gcgcccagga 50
cgctcctcc cgctgctggc ccggccggcg gccctgactg cgctgctgct 100
gctgctgctg ggccatggcg gcggcgggcg ctggggcgcc cgggcccagg 150
aggcgggcgc ggcgggcgcg gacgggcccc ccgcggcaga cggcgaggac 200
ggacaggacc cgcacagcaa gcacctgtac acggccgaca tgttcacgca 250
cgggatccag agcgcgcgc acttcgtcat gttcttcgcg ccctgggtgtg 300
gacactgcca gcggctgcag ccgacttga atgacctggg agacaaatac 350
aacagcatgg aagatgcaa agtctatgtg gctaaagtgg actgcacggc 400
ccactccgac gtgtgctccg cccagggggg gcgaggatac cccaccttaa 450
agcttttcaa gccaggcaa gaagctgtga agtaccaggg tcctcgggac 500
ttccagacac tggaaaactg gatgctgcag aactgaacg aggagccagt 550
gacaccagag ccggaagtgg aaccgcccag tgcccccgag ctcaagcaag 600
ggctgtatga gctctcagca agcaactttg agctgcacgt tgcacaaggc 650
gaccacttta tcaagttctt cgctccgtgg tgtgggtcact gcaaagccct 700
ggctccaacc tgggagcagc tggtcttggg ccttgaacat tccgaaactg 750
tcaagattgg caaggttgat tgtacacagc actatgaact ctgctccgga 800
aaccagggtt gtggtatcc cactcttctc tggttccgag atgggaaaaa 850
ggtggatcag tacaaggga agcgggattt ggagtcactg agggagtacg 900
tgagtcgca gctgcagcgc acagagactg gagcgacgga gaccgtcacg 950
ccctcagagg ccccggtgct ggcagctgag cccgaggctg acaagggcac 1000
tgtgttggca ctcaactgaaa ataacttcga tgacaccatt gcagaaggaa 1050
taaccttcat caagttttat gctccatggt gtggtcattg taagactctg 1100
gtcctactt gggaggaact ctctaaaaag gaattccctg gtctggcggg 1150

ggtcaagatc gccgaagtag actgcactgc tgaacggaat atctgcagca 1200
 agtattcggg acgaggctac cccacgttat tgcttttccg aggagggaaag 1250
 aaagtcagtg agcacagtgg aggcagagac cttgactcgt tacaccgctt 1300
 tgtcctgagc caagcgaaag acgaacttta ggaacacagt tggaggtcac 1350
 ctctcctgcc cagctcccgc accctgcgtt taggagttca gtcccacaga 1400
 ggccactggg ttcccagtgg tggctgttca gaaagcagaa cataactaagc 1450
 gtgaggtatc ttctttgtgt gtgtgttttc caagccaaca cactctacag 1500
 attctttatt aagttaagtt tctctaagta aatgtgtaac tcatgggtcac 1550
 tgtgtaaaca ttttcagtgg cgatatatcc cctttgacct tctcttgatg 1600
 aaattttacat ggtttccttt gagactaaaa tagcgttgag ggaaatgaaa 1650
 ttgctggact atttgtggct cctgagttga gtgatttttg tgaaagaaag 1700
 cacatccaaa gcatagttaa cctgcccacg agttctggaa aggtggcctt 1750
 gtggcagtat tgacgttcct ctgatcttaa ggtcacagtt gactcaatac 1800
 tgtgttggtc cgtagcatgg agcagattga aatgcaaaaa cccacacctc 1850
 tggaagatac cttcacggcc gctgctggag cttctgttgc tgtgaatact 1900
 tctctcagtg tgagaggtta gccgtgatga aagcagcgtt acttctgacc 1950
 gtgcctgagt aagagaatgc tgatgccata actttatgtg tcgatacttg 2000
 tcaaatacagt tactgttcag gggatccttc tgtttctcac ggggtgaaac 2050
 atgtcttttag ttctcatgt taacacgaag ccagagccca catgaactgt 2100
 tggatgtctt ccttagaaaag ggtaggcatg gaaaattcca cgaggctcat 2150
 tctcagtatc tcattaactc attgaaagat tccagttgta tttgtcacct 2200
 ggggtgacaa gaccagacag gctttccag gcctgggtat ccaggagggc 2250
 tctgcagccc tgctgaaggc ccctaactag agttctagag tttctgattc 2300
 tgtttctcag tagtcctttt agaggcttgc tatacttggg ctgcttcaag 2350
 gaggtcgacc ttctaagtga tgaagaatgg gatgcatttg atctcaagac 2400
 caaagacaga tgtcagtggg ctgctctggc cctgggtgtg acggctgtgg 2450
 cagctgttga tgccagtgtc ctctaactca tgctgtcctt gtgattaaac 2500
 acctctatct ccottgggaa taagcacata caggcttaag ctctaagata 2550
 gatagggtgt tgtcctttta ccatcgagct acttcccata ataaccactt 2600

tgcattcaac actcttcacc cacctcccat acgcaagggg atgtggatac 2650
 ttggcccaaa gtaactggtg gtaggaatct tagaacaag accacttata 2700
 ctgtctgtct gaggcagaag ataacagcag catctcgacc agcctctgcc 2750
 ttaaaggaaa tctttattaa tcacgtatgg ttcacagata attctttttt 2800
 taaaaaaacc caacctccta gagaagcaca actgtcaaga gtcttgtaca 2850
 cacaacttca gctttgcatc acgagtcttg tattccaaga aaatcaaagt 2900
 ggtacaattt gtttgtttac actatgatac tttctaaata aactcttttt 2950
 ttttaa 2956

<210> 90
 <211> 432
 <212> PRT
 <213> Homo sapiens

<400> 90
 Met Pro Ala Arg Pro Gly Arg Leu Leu Pro Leu Leu Ala Arg Pro
 1 5 10 15
 Ala Ala Leu Thr Ala Leu Leu Leu Leu Leu Leu Gly His Gly Gly
 20 25 30
 Gly Gly Arg Trp Gly Ala Arg Ala Gln Glu Ala Ala Ala Ala Ala
 35 40 45
 Ala Asp Gly Pro Pro Ala Ala Asp Gly Glu Asp Gly Gln Asp Pro
 50 55 60
 His Ser Lys His Leu Tyr Thr Ala Asp Met Phe Thr His Gly Ile
 65 70 75
 Gln Ser Ala Ala His Phe Val Met Phe Phe Ala Pro Trp Cys Gly
 80 85 90
 His Cys Gln Arg Leu Gln Pro Thr Trp Asn Asp Leu Gly Asp Lys
 95 100 105
 Tyr Asn Ser Met Glu Asp Ala Lys Val Tyr Val Ala Lys Val Asp
 110 115 120
 Cys Thr Ala His Ser Asp Val Cys Ser Ala Gln Gly Val Arg Gly
 125 130 135
 Tyr Pro Thr Leu Lys Leu Phe Lys Pro Gly Gln Glu Ala Val Lys
 140 145 150
 Tyr Gln Gly Pro Arg Asp Phe Gln Thr Leu Glu Asn Trp Met Leu
 155 160 165
 Gln Thr Leu Asn Glu Glu Pro Val Thr Pro Glu Pro Glu Val Glu
 170 175 180

TOPTOP "5333/660

Pro	Pro	Ser	Ala	Pro	Glu	Leu	Lys	Gln	Gly	Leu	Tyr	Glu	Leu	Ser	185	190	195
Ala	Ser	Asn	Phe	Glu	Leu	His	Val	Ala	Gln	Gly	Asp	His	Phe	Ile	200	205	210
Lys	Phe	Phe	Ala	Pro	Trp	Cys	Gly	His	Cys	Lys	Ala	Leu	Ala	Pro	215	220	225
Thr	Trp	Glu	Gln	Leu	Ala	Leu	Gly	Leu	Glu	His	Ser	Glu	Thr	Val	230	235	240
Lys	Ile	Gly	Lys	Val	Asp	Cys	Thr	Gln	His	Tyr	Glu	Leu	Cys	Ser	245	250	255
Gly	Asn	Gln	Val	Arg	Gly	Tyr	Pro	Thr	Leu	Leu	Trp	Phe	Arg	Asp	260	265	270
Gly	Lys	Lys	Val	Asp	Gln	Tyr	Lys	Gly	Lys	Arg	Asp	Leu	Glu	Ser	275	280	285
Leu	Arg	Glu	Tyr	Val	Glu	Ser	Gln	Leu	Gln	Arg	Thr	Glu	Thr	Gly	290	295	300
Ala	Thr	Glu	Thr	Val	Thr	Pro	Ser	Glu	Ala	Pro	Val	Leu	Ala	Ala	305	310	315
Glu	Pro	Glu	Ala	Asp	Lys	Gly	Thr	Val	Leu	Ala	Leu	Thr	Glu	Asn	320	325	330
Asn	Phe	Asp	Asp	Thr	Ile	Ala	Glu	Gly	Ile	Thr	Phe	Ile	Lys	Phe	335	340	345
Tyr	Ala	Pro	Trp	Cys	Gly	His	Cys	Lys	Thr	Leu	Ala	Pro	Thr	Trp	350	355	360
Glu	Glu	Leu	Ser	Lys	Lys	Glu	Phe	Pro	Gly	Leu	Ala	Gly	Val	Lys	365	370	375
Ile	Ala	Glu	Val	Asp	Cys	Thr	Ala	Glu	Arg	Asn	Ile	Cys	Ser	Lys	380	385	390
Tyr	Ser	Val	Arg	Gly	Tyr	Pro	Thr	Leu	Leu	Leu	Phe	Arg	Gly	Gly	395	400	405
Lys	Lys	Val	Ser	Glu	His	Ser	Gly	Gly	Arg	Asp	Leu	Asp	Ser	Leu	410	415	420
His	Arg	Phe	Val	Leu	Ser	Gln	Ala	Lys	Asp	Glu	Leu				425	430	

<210> 91

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 91
atgtttcttcg cgccctggtg 20

<210> 92
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
ccaagccaac acactctaca g 21

<210> 93
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
aagtggtcgc cttgtgcaac gtgc 24

<210> 94
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 94
ggtcaaaggg gatatatcgc cac 23

<210> 95
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 95
gcatggaaga tgccaaagtc tatgtggcta aagtggactg cacggcca 49

<210> 96
<211> 1016
<212> DNA
<213> Homo sapiens

<400> 96
cttttctgag gaaccacagc aatgaatggc tttgcatcct tgcttogaag 50
aaaccaattt atcctcctgg tactatttct tttgcaaatt cagagtctgg 100
gtctggatat tgatagccgt cctaccgctg aagtctgtgc cacacacaca 150

80					85					90				
Thr	Gly	Pro	Ile	Gly	Lys	Lys	Gly	Asp	Lys	Gly	Glu	Lys	Gly	Leu
				95					100					105
Leu	Gly	Ile	Pro	Gly	Glu	Lys	Gly	Lys	Ala	Gly	Thr	Val	Cys	Asp
				110					115					120
Cys	Gly	Arg	Tyr	Arg	Lys	Phe	Val	Gly	Gln	Leu	Asp	Ile	Ser	Ile
				125					130					135
Ala	Arg	Leu	Lys	Thr	Ser	Met	Lys	Phe	Val	Lys	Asn	Val	Ile	Ala
				140					145					150
Gly	Ile	Arg	Glu	Thr	Glu	Glu	Lys	Phe	Tyr	Tyr	Ile	Val	Gln	Glu
				155					160					165
Glu	Lys	Asn	Tyr	Arg	Glu	Ser	Leu	Thr	His	Cys	Arg	Ile	Arg	Gly
				170					175					180
Gly	Met	Leu	Ala	Met	Pro	Lys	Asp	Glu	Ala	Ala	Asn	Thr	Leu	Ile
				185					190					195
Ala	Asp	Tyr	Val	Ala	Lys	Ser	Gly	Phe	Phe	Arg	Val	Phe	Ile	Gly
				200					205					210
Val	Asn	Asp	Leu	Glu	Arg	Glu	Gly	Gln	Tyr	Met	Ser	Thr	Asp	Asn
				215					220					225
Thr	Pro	Leu	Gln	Asn	Tyr	Ser	Asn	Trp	Asn	Glu	Gly	Glu	Pro	Ser
				230					235					240
Asp	Pro	Tyr	Gly	His	Glu	Asp	Cys	Val	Glu	Met	Leu	Ser	Ser	Gly
				245					250					255
Arg	Trp	Asn	Asp	Thr	Glu	Cys	His	Leu	Thr	Met	Tyr	Phe	Val	Cys
				260					265					270
Glu	Phe	Ile	Lys	Lys	Lys	Lys	Lys							
				275										

<210> 98
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 98
 cgctgactat gttgccaaga gtgg 24

 <210> 99
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Synthetic oligonucleotide probe

<400> 99

gatgatggag gctccatacc tcag 24

<210> 100

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 100

gtgttcattg gcgtgaatga ccttgaaagg gagggacagt acatgttcac 50

<210> 101

<211> 2574

<212> DNA

<213> Homo sapiens

<400> 101

ggttctatcg attcgaattc ggccacactg gccggatcct ctagagatcc 50

ctcgacctcg acccacgcgt ccgctgctct ccgcccggtg ggagtgggtg 100

gggcctgggt gggaatgggc gtgtgccagc gcacgcgcgc tccctggaag 150

gagaagtctc agctagaacg agcggcccta ggttttcgga agggaggatc 200

agggatgttt gcgagcggct ggaaccagac ggtgccgata gaggaagcgg 250

gctccatggc tgccctcctg ctgctgcccc tgctgctgtt gctaccgctg 300

ctgctgctga agctacacct ctggccgcag ttgogctggc ttccggcgga 350

cttggccttt gcggtgcgag ctctgtgctg caaaagggct cttcgagctc 400

gcgccctggc cgcggctgcc gccgaccgg aaggtcccga ggggggctgc 450

agcctggcct ggcgccctgc ggaactggcc cagcagcgcg ccgcgcacac 500

ctttctcatt cacggctcgc ggcgcttttag ctactcagag gcggagcgcg 550

agagtaacag ggctgcacgc gccttcctac gtgcgctagg ctgggactgg 600

ggacccgacg gcggcgacag cggcgagggg agcgctggag aaggcgagcg 650

ggcagcgccg ggagccggag atgcagcggc cggaagcggc gcggagtttg 700

ccggagggga cggtgccgcc agaggtggag gagccgccgc ccctctgtca 750

cctggagcaa ctgtggcgct gtcctcccc gctggcccag agtttctgtg 800

gctctggttc gggctggcca aggcggcct gcgcactgcc tttgtgcca 850

ccgccctgcg ccggggcccc ctgctgcact gcctccgcag ctgcggcgcg 900

cgcgcgctgg tgctggcgcc agagtttctg gagtccctgg agccggacct 950
 gcccgccttg agagccatgg ggctccacct gtgggctgca ggcccaggaa 1000
 cccaccctgc tggaattagc gatttgctgg ctgaagtgtc cgctgaagtg 1050
 gatggggccag tgccaggata cctctcttcc ccccagagca taacagacac 1100
 gtgcctgtac atcttcacct ctggcaccac gggcctcccc aaggctgctc 1150
 ggatcagtca tctgaagatc ctgcaatgcc agggcttota tcagctgtgt 1200
 ggtgtccacc aggaagatgt gatctacctc gccctccac tctaccacat 1250
 gtccggttcc ctgctgggca tcgtgggctg catgggcatt ggggccacag 1300
 tgggtgctgaa atccaagttc tcggctggtc agttctggga agattgccag 1350
 cagcacaggg tgacggtgtt ccagtacatt ggggagctgt gccgatacct 1400
 tgtcaaccag ccccgagca aggcagaacg tggccataag gtccggctgg 1450
 cagtgggcag cgggctgcgc ccagatacct gggagcgttt tgtgcggcgc 1500
 ttcgggcccc tgcaaggctg ggagacatat ggactgacag agggcaacgt 1550
 ggccaccatc aactacacag gacagcgggg cgctgtgggg cgtgcttcc 1600
 ggctttacaa gcatatcttc cccttctcct tgattcgcta tgatgtcacc 1650
 acaggagagc caattcgga cccccagggg cactgtatgg ccacatctcc 1700
 aggtgagcca gggctgctgg tggccccgt aagccagcag tccccattcc 1750
 tgggctatgc tggcgggcca gagctggccc aggggaagtt gctaaaggat 1800
 gtcttccggc ctggggatgt tttcttcaac actggggacc tgctggtctg 1850
 cgatgaccaa ggttttctcc gcttccatga tcgtactgga gacaccttca 1900
 ggtggaaggg ggagaatgtg gccacaaccg aggtggcaga ggtcttcgag 1950
 gccotagatt ttcttcagga ggtgaacgtc tatggagtca ctgtgccag 2000
 gcatgaaggc agggctggaa tggcagccct agttctgcgt cccccccacg 2050
 ctttgacact tatgcagctc tacaccacg tgtctgagaa cttgccacct 2100
 tatgcccggc ccgattcct caggctccag gagtctttgg ccaccacaga 2150
 gaccttcaaa cagcagaaag ttcggatggc aatgagggc ttcgacccca 2200
 gcacctgtc tgacctactg tacgttctgg accaggctgt aggtgcctac 2250
 ctgccccca caactgccc gtacagcgcc ctctggcag gaaaccttcg 2300
 aatctgagaa ctccacacc tgaggcacct gagagaggaa ctctgtgggg 2350

tggggggccgt tgcaggtgta ctgggctgtc agggatcttt tctataaccag 2400
 aactgcggtc actattttgt aataaatgtg gctggagctg atccagctgt 2450
 ctctgacctt aaaaaaaaaa aaaaaaaaaa aaaaaaaaag ggcggccgcg 2500
 actctagagt cgacctgcag tagggataac agggtaataa gcttgccgcg 2550
 catggcccaa cttgtttatt gcag 2574

<210> 102

<211> 730

<212> PRT

<213> Homo sapiens

<400> 102

Met	Gly	Val	Cys	Gln	Arg	Thr	Arg	Ala	Pro	Trp	Lys	Glu	Lys	Ser	1	5	10	15
Gln	Leu	Glu	Arg	Ala	Ala	Leu	Gly	Phe	Arg	Lys	Gly	Gly	Ser	Gly	20	25	30	
Met	Phe	Ala	Ser	Gly	Trp	Asn	Gln	Thr	Val	Pro	Ile	Glu	Glu	Ala	35	40	45	
Gly	Ser	Met	Ala	Ala	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Leu	Leu	50	55	60	
Pro	Leu	Leu	Leu	Leu	Lys	Leu	His	Leu	Trp	Pro	Gln	Leu	Arg	Trp	65	70	75	
Leu	Pro	Ala	Asp	Leu	Ala	Phe	Ala	Val	Arg	Ala	Leu	Cys	Cys	Lys	80	85	90	
Arg	Ala	Leu	Arg	Ala	Arg	Ala	Leu	Ala	Ala	Ala	Ala	Ala	Asp	Pro	95	100	105	
Glu	Gly	Pro	Glu	Gly	Gly	Cys	Ser	Leu	Ala	Trp	Arg	Leu	Ala	Glu	110	115	120	
Leu	Ala	Gln	Gln	Arg	Ala	Ala	His	Thr	Phe	Leu	Ile	His	Gly	Ser	125	130	135	
Arg	Arg	Phe	Ser	Tyr	Ser	Glu	Ala	Glu	Arg	Glu	Ser	Asn	Arg	Ala	140	145	150	
Ala	Arg	Ala	Phe	Leu	Arg	Ala	Leu	Gly	Trp	Asp	Trp	Gly	Pro	Asp	155	160	165	
Gly	Gly	Asp	Ser	Gly	Glu	Gly	Ser	Ala	Gly	Glu	Gly	Glu	Arg	Ala	170	175	180	
Ala	Pro	Gly	Ala	Gly	Asp	Ala	Ala	Ala	Gly	Ser	Gly	Ala	Glu	Phe	185	190	195	
Ala	Gly	Gly	Asp	Gly	Ala	Ala	Arg	Gly	Gly	Gly	Ala	Ala	Ala	Pro	200	205	210	

<210> 104
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 104
ggagaatgtg gccacaac 18

<210> 105
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 105
gccctggcac agtgactcca tagacg 26

<210> 106
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 106
atccacttca gcggacac 18

<210> 107
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 107
ccagtgccag gatacctctc ttccccccag agcataacag acacg 45

<210> 108
<211> 2579
<212> DNA
<213> Homo sapiens

<400> 108
cctgtgttaa gctgaggttt cccctagatc tcgtatatcc ccaacacata 50
cctccaagca cacacatccc caagaacctc gagctcacac caacagacac 100
acgcgcgcac acacactcgc tctcgcttgc ccattctcct cccgggggag 150
ccggcgcgcg ctcccacctt tgccgcacac tccggcgagc cgagcccgcg 200

gcgctccagg attctgoggo tcggaactcg gattgcagct ctgaaccccc 250
atggtggttt tttaaacact tcttttcctt ctcttcctcg ttttgattgc 300
accgtttcca tctgggggct agaggagcaa ggcagcagcc ttcccagcca 350
gcccttggtg gcttgccatc gtccatctgg cttataaaag tttgctgagc 400
gcagtccaga gggctgogct gctcgtcccc tcggctggca gaagggggtg 450
acgctgggca ggggagga ggcgcgogct gcctctggcg ggctttcggc 500
ttgaggggca aggtgaagag cgcaccggcc gtggggttta ccgagctgga 550
tttgatgtt gcaccatgcc ttcttgatc ggggctgtga ttcttccct 600
cttggggctg ctgctctccc tccccgogcg ggcggtgtg aaggctcgga 650
gctgcggaga ggtccgccag gcgtacggtg ccaagggtt cagcctggcg 700
gacatcccct accaggagat cgcaggggaa cacttaagaa tctgtcctca 750
ggaatataca tgctgcacca cagaaatgga agacaagtta agccaacaaa 800
gcaaactcga atttgaaaac cttgtggaag agacaagcca ttttgctgcg 850
accacttttg tgtccaggca taagaaattt gacgaatttt tccgagagct 900
cctggagaat gcagaaaagt cactaaatga tatgtttgta cggacctatg 950
gcatgctgta catgcagaat tcagaagtct tccaggacct cttcacagag 1000
ctgaaaaggt actacactgg gggtaatgtg aatctggagg aaatgctcaa 1050
tgacttttgg gctcggctcc tggaacggat gtttcagctg ataaaccctc 1100
agtatcactt cagtgaagac tacctggaat gtgtgagcaa atacactgac 1150
cagctcaagc catttgaga cgtgccccgg aaactgaaga ttcaggttac 1200
ccgogccttc attgctgcca ggacctttgt ccaggggctg actgtgggca 1250
gagaagttgc aaaccgagtt tccaaggcca gccaacccc aggggtgtatc 1300
cgtgccctca tgaagatgct gtactgccc tactgtcggg ggcttccac 1350
tgtgaggccc tgcaacaact actgtctcaa cgtcatgaag ggctgcttgg 1400
caaactcaggc tgacctgac acagagtgga atctgtttat agatgcaatg 1450
ctcttggtgg cagagcgact ggaggggcca ttcaacattg agtcggtcat 1500
ggacccgata gatgtcaaga tttctgaagc cattatgaac atgcaagaaa 1550
acagcatgca ggtgtctgca aaggtcttcc agggatgtgg tcagcccaaa 1600
cctgtccag ccctcagatc tgcccgtca gctcctgaaa attttaatac 1650

acgttttcagg ccctacaatc ctgaggaaaag accaacaact gctgcaggca 1700
 caagcttgga cgggctggc acagacataa aagagaaatt gaagctctct 1750
 aaaaaggctc ggtcagcatt accctacact atctgcaagg acgagagcgt 1800
 gacagcgggc acgtccaacg aggaggaatg ctggaacggg cacagcaaag 1850
 ccagatactt gcctgagatc atgaatgatg ggctcaccaa ccagatcaac 1900
 aatcccaggg tggatgtgga catcactcgg cctgacactt tcatcagaca 1950
 gcagattatg gctctccgtg tgatgaccaa caaactaaaa aacgcctaca 2000
 atggcaatga tgtcaatttc caggacacaa gtgatgaatc cagtggctca 2050
 gggagtggca gtgggtgcat ggatgacgtg tgtcccacgg agtttgagtt 2100
 tgtcaccaca gaggcccccg cagtggatcc cgaccggaga gaggtggact 2150
 cttctgcagc ccagcgtggc cactccctgc tctcctggc tctcacctgc 2200
 attgtcctgg cactgcagag actgtgcaga taatcttggg tttttggtca 2250
 gatgaaactg catttttagct atctgaatgg ccaactcact tcttttctta 2300
 cactcttggg caatggacca tgccacaaaa acttaccgtt ttctatgaga 2350
 agagagcagt aatgcaatct gcctcccttt ttgttttccc aaagagtacc 2400
 gggtgccaga ctgaactgct tcctctttcc ttcagctatc tgtggggacc 2450
 ttgtttatcc tagagagaat tcttactcaa atttttcgta ccaggagatt 2500
 ttcttacctt catttgcttt tatgctgcag aagtaaagga atctcacgtt 2550
 gtgagggttt tttttttctc atttaaaat 2579

<210> 109

<211> 555

<212> PRT

<213> Homo sapiens

<400> 109

Met	Pro	Ser	Trp	Ile	Gly	Ala	Val	Ile	Leu	Pro	Leu	Leu	Gly	Leu
1				5					10					15
Leu	Leu	Ser	Leu	Pro	Ala	Gly	Ala	Asp	Val	Lys	Ala	Arg	Ser	Cys
				20					25					30
Gly	Glu	Val	Arg	Gln	Ala	Tyr	Gly	Ala	Lys	Gly	Phe	Ser	Leu	Ala
				35					40					45
Asp	Ile	Pro	Tyr	Gln	Glu	Ile	Ala	Gly	Glu	His	Leu	Arg	Ile	Cys
				50					55					60
Pro	Gln	Glu	Tyr	Thr	Cys	Cys	Thr	Thr	Glu	Met	Glu	Asp	Lys	Leu
				65					70					75

Ala	Ala	Gly	Thr	Ser	Leu	Asp	Arg	Leu	Val	Thr	Asp	Ile	Lys	Glu
				380					385					390
Lys	Leu	Lys	Leu	Ser	Lys	Lys	Val	Trp	Ser	Ala	Leu	Pro	Tyr	Thr
				395					400					405
Ile	Cys	Lys	Asp	Glu	Ser	Val	Thr	Ala	Gly	Thr	Ser	Asn	Glu	Glu
				410					415					420
Glu	Cys	Trp	Asn	Gly	His	Ser	Lys	Ala	Arg	Tyr	Leu	Pro	Glu	Ile
				425					430					435
Met	Asn	Asp	Gly	Leu	Thr	Asn	Gln	Ile	Asn	Asn	Pro	Glu	Val	Asp
				440					445					450
Val	Asp	Ile	Thr	Arg	Pro	Asp	Thr	Phe	Ile	Arg	Gln	Gln	Ile	Met
				455					460					465
Ala	Leu	Arg	Val	Met	Thr	Asn	Lys	Leu	Lys	Asn	Ala	Tyr	Asn	Gly
				470					475					480
Asn	Asp	Val	Asn	Phe	Gln	Asp	Thr	Ser	Asp	Glu	Ser	Ser	Gly	Ser
				485					490					495
Gly	Ser	Gly	Ser	Gly	Cys	Met	Asp	Asp	Val	Cys	Pro	Thr	Glu	Phe
				500					505					510
Glu	Phe	Val	Thr	Thr	Glu	Ala	Pro	Ala	Val	Asp	Pro	Asp	Arg	Arg
				515					520					525
Glu	Val	Asp	Ser	Ser	Ala	Ala	Gln	Arg	Gly	His	Ser	Leu	Leu	Ser
				530					535					540
Trp	Ser	Leu	Thr	Cys	Ile	Val	Leu	Ala	Leu	Gln	Arg	Leu	Cys	Arg
				545					550					555

<210> 110
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 110
 aagcgtgaca gcgggcacgt c 21

<210> 111
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 111

tgacacagtct ctgcagtgcc cagg 24

<210> 112

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 112

gaatgctgga acgggcacag caaagccaga tacttgctg 40

<210> 113

<211> 4649

<212> DNA

<213> Homo sapiens

<400> 113

cggacgcgtg ggcggacgcg tgggcaaaag aactcggagt gccaaagcta 50
aataagttag ctgagaaaac gcacgcagtt tgcagcgcct gcgccgggtg 100
cgccaactac gcaaagacca agcgggctcc gcgcggaccg gccgcggggc 150
tagggacccg gcttttggcct tcaggctccc tagcagcggg gaaaaggaat 200
tgctgcccgg agttttctgcg gaggtggagg gagatcagga aacggcttct 250
tcctcacttc gccgcctggt gagggtcggg gagattggca aacgcctagg 300
aaaggactgg ggaaaatagc cctgggaaag tggagaaggt gatcaggagg 350
ccggtccact acggcagttt atctgtctga tcagagccag acgcgacgcg 400
tccacttcgc agttctttcc aggtgtgggg accgcaggac agacggccga 450
tcccgccgcc ctccgtacca gcactcccag gagagtcagc ctgcctcccc 500
aacgtcgagg gcgctctggc cacgaaaagt tcctgtccac tgtgattctc 550
aatccttgc ttggtttttt tctccagaga acttttgggt ggagatatta 600
acttttttct tttttttttt ccttgggtgga agctgctcta gggagggggg 650
aggaggagga gaaagtgaaa tgtgctggag aagagcgagc cctccttgtt 700
cttccggagt cccatccatt aagccatcac ttctggaaga ttaaagttgt 750
cggacatggt gacagctgag aggagaggag gatttcttgc cagggtggaga 800
gtcttcaccg tctgttgggt gcatgtgtgc gccgcagcg gcgcggggcg 850
cgtggttctc cgcgtggagt ctacactggg acctgagtga atggctccca 900
ggggctgtgc ggggcatccg cctccgcctt ctccacaggc ctgtgtctgt 950
cctggaaaga tgctagcaat gggggcgctg gcaggattct ggatcctctg 1000

cctcctcaact tatgggttacc tgtcctgggg ccaggcctta gaagaggagg 1050
 aagaaggggc cttactagct caagctggag agaaactaga gccagcaca 1100
 acttccacct cccagcccca tctcattttc atcctagcgg atgatcaggg 1150
 atttagagat gtgggttacc acggatctga gattaaaaca cctactcttg 1200
 acaagctcgc tgccgaagga gttaaactgg agaactacta tgtccagcct 1250
 atttgcacac catccaggag tcagtttatt actggaaagt atcagataca 1300
 caccggactt caacattcta tcataagacc taccacaacc aactgtttac 1350
 ctctggacaa tgccacccta cctcagaaac tgaaggagggt tggatattca 1400
 acgcatatgg tcggaaaatg gcacttgggt tttaacagaa aagaatgcat 1450
 gccaccaga agaggatttg ataccttttt tggttccctt ttgggaagtg 1500
 gggattacta tacacactac aaatgtgaca gtcctgggat gtgtggctat 1550
 gacttgatg aaaacgacaa tgctgcctgg gactatgaca atggcatata 1600
 ctccacacag atgtacactc agagagtaca gcaaacttta gcttcccata 1650
 accccacaaa gcctatatatt ttatatactg cctatcaagc tgttcattca 1700
 ccaactgcaag ctcttggcag gtatttcgaa cactaccgat ccattatcaa 1750
 cataaacagg agaagatatg ctgccatgct ttcctgctta gatgaagcaa 1800
 tcaacaacgt gacattggct ctaaagactt atggtttcta taacaacagc 1850
 attatcattt actcttcaga taatgggtggc cagcctacgg caggagggag 1900
 taactggcct ctccagaggta gcaaaggaac atattgggaa ggagggatcc 1950
 gggctgtagg ctttgtgcat agcccacttc tgaaaaacaa gggaacagtg 2000
 tgtaaggaac ttgtgcacat cactgactgg taccaccactc tcatttcaact 2050
 ggctgaagga cagattgatg aggacattca actagatggc tatgatattc 2100
 gggagaccat aagtgagggt cttcgctcac cccgagtaga tattttgcat 2150
 aacattgacc cctatacacc aaggcaaaaa atggctcctg ggcagcaggc 2200
 tatgggatct ggaacactgc aatccagtca gccatcagag tgcagcactg 2250
 gaaattgctt acaggaaatc ctggctacag cgactgggtc cccctcagt 2300
 ctttcagcaa cctgggaccg aaccggtggc acaatgaacg gatcaccttg 2350
 tcaactggca aaagtgtatg gcttttcaac atcacagccg acccatatga 2400
 gaggggtggac ctatctaaca ggtatccagg aatcgtgaag aagctcctac 2450

ggaggtcttc acagttcaac aaaactgcag tgccggtcag gtatcccccc 2500
 aaagacccca gaagtaacct taggctcaat ggaggggtct ggggacctg 2550
 gtataaagag gaaaccaaga aaaagaagcc aagcaaaaat caggctgaga 2600
 aaaagcaaaa gaaaagcaaa aaaaagaaga agaaacagca gaaagcagtc 2650
 tcaggtaaac cagcaaattt ggctcgataa tatcgctggc ctaagcgtca 2700
 ggcttgtttt catgctgtgc cactccagag acttctgcca cctggccgcc 2750
 aactgaaaa ctgtcctgct cagtgccaaag gtgctactct tgcaagccac 2800
 acttagagag agtggagatg tttatttctc tcgctccttt agaaaacgtg 2850
 gtgagtcctg agttccactg ctgtgcttca gtcaactgac caaactgac 2900
 tttgaattat aggaggagaa caataaccta ccatccgcaa gcatgctaata 2950
 ttgatggaag ttacagggtta gcatgattaa aactacctt gataaattac 3000
 agtcaaagat tgtgtcacct caaaggcctt gaagaatata ttttcttggg 3050
 gaatttttgt atgtctgtca tatgacactt gggtttttta attaatctta 3100
 ttttatatat ataaatatat gtttcttttc ctgtgaaaag ctgtttttct 3150
 cacatgtgaa cagcttgcac ctcatcttac catgcgtgag ggaatggcaa 3200
 ataagaatgt ttgagcacac tgcccacaat gaatgtaact attttctaaa 3250
 cactttacta gaagaacatt tcagtataaa aaacctaatt tatttttaca 3300
 gaaaaatatt ttgttgtttt tataaaaagt tatgcaaag acttttattt 3350
 ttatttcctg cataccatta gaagaatttt atttcatttc ttcaaattat 3400
 caagcactgt aatactataa attaatgtaa tactgtgtga attcagacta 3450
 taaaaaacat cattcagaaa actttataat cgtcattgtt caatcaagat 3500
 tttgaatgta ataagatgaa tatattcctt acaaattact tggaaattca 3550
 atgtttgtgc agagttgaga caactttatt gtttctatca taaactattt 3600
 atgtatctta attattaaaa tgatttactt tatggcacta gaaaatttac 3650
 tgtggctttt ctgatctaac ttctagctaa aattgtatca ttggctcctaa 3700
 aaaataaaaa tctttactaa taggcaattg aaggaatggg ttgctaacaa 3750
 ccacagtaat ataatatgat ttacagata gatgcttccc cttggctatg 3800
 acatggagaa agattttccc ataataataa ctaatattha tattaggttg 3850
 gtgcaaaact agttgcgggt tttccatta aaagtaataa cttactctt 3900

				110					115					120
Ile	Cys	Thr	Pro	Ser 125	Arg	Ser	Gln	Phe	Ile 130	Thr	Gly	Lys	Tyr	Gln 135
Ile	His	Thr	Gly	Leu 140	Gln	His	Ser	Ile	Ile 145	Arg	Pro	Thr	Gln	Pro 150
Asn	Cys	Leu	Pro	Leu 155	Asp	Asn	Ala	Thr	Leu 160	Pro	Gln	Lys	Leu	Lys 165
Glu	Val	Gly	Tyr	Ser 170	Thr	His	Met	Val	Gly 175	Lys	Trp	His	Leu	Gly 180
Phe	Asn	Arg	Lys	Glu 185	Cys	Met	Pro	Thr	Arg 190	Arg	Gly	Phe	Asp	Thr 195
Phe	Phe	Gly	Ser	Leu 200	Leu	Gly	Ser	Gly	Asp 205	Tyr	Tyr	Thr	His	Tyr 210
Lys	Cys	Asp	Ser	Pro 215	Gly	Met	Cys	Gly	Tyr 220	Asp	Leu	Tyr	Glu	Asn 225
Asp	Asn	Ala	Ala	Trp 230	Asp	Tyr	Asp	Asn	Gly 235	Ile	Tyr	Ser	Thr	Gln 240
Met	Tyr	Thr	Gln	Arg 245	Val	Gln	Gln	Ile	Leu 250	Ala	Ser	His	Asn	Pro 255
Thr	Lys	Pro	Ile	Phe 260	Leu	Tyr	Thr	Ala	Tyr 265	Gln	Ala	Val	His	Ser 270
Pro	Leu	Gln	Ala	Pro 275	Gly	Arg	Tyr	Phe	Glu 280	His	Tyr	Arg	Ser	Ile 285
Ile	Asn	Ile	Asn	Arg 290	Arg	Arg	Tyr	Ala	Ala 295	Met	Leu	Ser	Cys	Leu 300
Asp	Glu	Ala	Ile	Asn 305	Asn	Val	Thr	Leu	Ala 310	Leu	Lys	Thr	Tyr	Gly 315
Phe	Tyr	Asn	Asn	Ser 320	Ile	Ile	Ile	Tyr	Ser 325	Ser	Asp	Asn	Gly	Gly 330
Gln	Pro	Thr	Ala	Gly 335	Gly	Ser	Asn	Trp	Pro 340	Leu	Arg	Gly	Ser	Lys 345
Gly	Thr	Tyr	Trp	Glu 350	Gly	Gly	Ile	Arg	Ala 355	Val	Gly	Phe	Val	His 360
Ser	Pro	Leu	Leu	Lys 365	Asn	Lys	Gly	Thr	Val 370	Cys	Lys	Glu	Leu	Val 375
His	Ile	Thr	Asp	Trp 380	Tyr	Pro	Thr	Leu	Ile 385	Ser	Leu	Ala	Glu	Gly 390
Gln	Ile	Asp	Glu	Asp 395	Ile	Gln	Leu	Asp	Gly 400	Tyr	Asp	Ile	Trp	Glu 405

Thr	Ile	Ser	Glu	Gly	Leu	Arg	Ser	Pro	Arg	Val	Asp	Ile	Leu	His
				410					415					420
Asn	Ile	Asp	Pro	Tyr	Thr	Pro	Arg	Gln	Lys	Met	Ala	Pro	Gly	Gln
				425					430					435
Gln	Ala	Met	Gly	Ser	Gly	Thr	Leu	Gln	Ser	Ser	Gln	Pro	Ser	Glu
				440					445					450
Cys	Ser	Thr	Gly	Asn	Cys	Leu	Gln	Glu	Ile	Leu	Ala	Thr	Ala	Thr
				455					460					465
Gly	Ser	Pro	Leu	Ser	Leu	Ser	Ala	Thr	Trp	Asp	Arg	Thr	Gly	Gly
				470					475					480
Thr	Met	Asn	Gly	Ser	Pro	Cys	Gln	Leu	Ala	Lys	Val	Tyr	Gly	Phe
				485					490					495
Ser	Thr	Ser	Gln	Pro	Thr	His	Met	Arg	Gly	Trp	Thr	Tyr	Leu	Thr
				500					505					510
Gly	Ile	Gln	Glu	Ser										
				515										

<210> 115
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 115
 cccaacccaa ctgtttacct ctgg 24

 <210> 116
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 116
 ctctctgagt gtacatctgt gtgg 24

 <210> 117
 <211> 53
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <220>
 <221> unsure
 <222> 33
 <223> unknown base

```

<400> 117
gccaccctac ctcagaaact gaaggagggtt ggntattcaa cgcatatggt 50

cgg 53

<210> 118
<211> 2260
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 2009, 2026, 2033, 2055, 2074, 2078, 2086
<223> unknown base

<400> 118
cggacgcgtg ggtgcgagtg gagcggagga cccgagcggc tgaggagaga 50

ggaggcgggcg gcttagctgc tacgggggtcc ggccggcgcc ctcccagggg 100

gggctcagga ggaggaagga ggacccgtgc gagaatgcct ctgccctgga 150

gccttgcgct cccgctgctg ctctcctggg tggcaggtgg ttccgggaac 200

gcggccagtg caaggcatca cgggttggtta gcatcggcac gtcagcctgg 250

ggtctgtcac tatggaacta aactggcctg ctgctacggc tggagaagaa 300

acagcaaggg agtctgtgaa gctacatgcg aacctggatg taagtttggg 350

gagtgcgtgg gaccaaaca atgcagatgc tttccaggat acaccgggaa 400

aacctgcagt caagatgtga atgagtgtgg aatgaaaccc cggccatgcc 450

aacacagatg tgtgaataca cacggaagct acaagtgctt ttgcctcagt 500

ggccacatgc tcatgccaga tgctacgtgt gtgaactota ggacatgtgc 550

catgataaac tgtcagtaca gctgtgaaga cacagaagaa gggccacagt 600

gcctgtgtcc atcctcagga ctccgcctgg ccccaaatgg aagagactgt 650

ctagatattg atgaatgtgc ctctggtaaa gtcattctgc cctacaatcg 700

aagatgtgtg aacacatttg gaagctacta ctgcaaatgt cacattgggt 750

tcgaactgca atatatcagt ggacgatatg actgtataga tataaatgaa 800

tgtactatgg atagccatac gtgcagccac catgccaatt gcttcaatac 850

ccaaggggcc ttcaagtgtg aatgcaagca gggatataaa ggcaatggac 900

ttcgggtgtc tgctatccct gaaaattctg tgaaggaagt cctcagagca 950

cctggtacca tcaaagacag aatcaagaag ttgcttgctc aaaaaaacag 1000

catgaaaaag aaggcaaaaa ttaaaaatgt taccacagaa cccaccagga 1050

```


Val	Ala	Gly	Gly	Phe	Gly	Asn	Ala	Ala	Ser	Ala	Arg	His	His	Gly	
				20					25					30	
Leu	Leu	Ala	Ser	Ala	Arg	Gln	Pro	Gly	Val	Cys	His	Tyr	Gly	Thr	
				35					40					45	
Lys	Leu	Ala	Cys	Cys	Tyr	Gly	Trp	Arg	Arg	Asn	Ser	Lys	Gly	Val	
				50					55					60	
Cys	Glu	Ala	Thr	Cys	Glu	Pro	Gly	Cys	Lys	Phe	Gly	Glu	Cys	Val	
				65					70					75	
Gly	Pro	Asn	Lys	Cys	Arg	Cys	Phe	Pro	Gly	Tyr	Thr	Gly	Lys	Thr	
				80					85					90	
Cys	Ser	Gln	Asp	Val	Asn	Glu	Cys	Gly	Met	Lys	Pro	Arg	Pro	Cys	
				95					100					105	
Gln	His	Arg	Cys	Val	Asn	Thr	His	Gly	Ser	Tyr	Lys	Cys	Phe	Cys	
				110					115					120	
Leu	Ser	Gly	His	Met	Leu	Met	Pro	Asp	Ala	Thr	Cys	Val	Asn	Ser	
				125					130					135	
Arg	Thr	Cys	Ala	Met	Ile	Asn	Cys	Gln	Tyr	Ser	Cys	Glu	Asp	Thr	
				140					145					150	
Glu	Glu	Gly	Pro	Gln	Cys	Leu	Cys	Pro	Ser	Ser	Gly	Leu	Arg	Leu	
				155					160					165	
Ala	Pro	Asn	Gly	Arg	Asp	Cys	Leu	Asp	Ile	Asp	Glu	Cys	Ala	Ser	
				170					175					180	
Gly	Lys	Val	Ile	Cys	Pro	Tyr	Asn	Arg	Arg	Cys	Val	Asn	Thr	Phe	
				185					190					195	
Gly	Ser	Tyr	Tyr	Cys	Lys	Cys	His	Ile	Gly	Phe	Glu	Leu	Gln	Tyr	
				200					205					210	
Ile	Ser	Gly	Arg	Tyr	Asp	Cys	Ile	Asp	Ile	Asn	Glu	Cys	Thr	Met	
				215					220					225	
Asp	Ser	His	Thr	Cys	Ser	His	His	Ala	Asn	Cys	Phe	Asn	Thr	Gln	
				230					235					240	
Gly	Ser	Phe	Lys	Cys	Lys	Cys	Lys	Gln	Gly	Tyr	Lys	Gly	Asn	Gly	
				245					250					255	
Leu	Arg	Cys	Ser	Ala	Ile	Pro	Glu	Asn	Ser	Val	Lys	Glu	Val	Leu	
				260					265					270	
Arg	Ala	Pro	Gly	Thr	Ile	Lys	Asp	Arg	Ile	Lys	Lys	Leu	Leu	Ala	
				275					280					285	
His	Lys	Asn	Ser	Met	Lys	Lys	Lys	Ala	Lys	Ile	Lys	Asn	Val	Thr	
				290					295					300	
Pro	Glu	Pro	Thr	Arg	Thr	Pro	Thr	Pro	Lys	Val	Asn	Leu	Gln	Pro	

315

Gly Lys Lys Gly Asn Glu Glu Lys
335

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

cctcagtggc cacatgctca tq 22

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

ggctgcacgt atggctatcc atag 24

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

gataaactgt cagtacagct gtgaagacac agaagaaggc ccacagtacc 50

<213> Homo sapiens

gggagctgct gctgtggctg ctggtgctgt gcgcgctgct cctgctcttg 50

gtgcagctgc tgcgcttcct gagggctgac ggcgacctga cgctactatg 100

ggccgagtgg cagggacgac gcccagaatg ggagctgact gatatggtgg 150

tgtgggtgac tggagcctcg agtgggaattg gtgaggagct ggcttaccag 200

ttgtctaaac taggagtttc tcttgtgctg tcagccagaa gagtgcata 250

gctggaaagg gtgaaaagaa gatgcctaga gaatggcaat ttaaaagaaa 300

aagatatact tgttttgccc cttgacctga ccgacactgg ttcccatgaa 350
 gcggctacca aagctgttct ccaggagttt ggtagaatcg acattctgg 400
 caacaatggg ggaatgtccc agcgttctct gtgcatggat accagcttgg 450
 atgtctacag aaagctaata gagcttaact acttagggac ggtgtccttg 500
 acaaaatgtg ttctgcctca catgatcgag aggaagcaag gaaagattgt 550
 tactgtgaat agcatcctgg gtatcatatc tgtacctctt tccattggat 600
 actgtgctag caagcatgct ctccgggggt tttttaatgg ccttcgaaca 650
 gaacttgcca cataccagg tataatagtt tctaacattt gcccaggacc 700
 tgtgcaatca aatattgtgg agaattccct agctggagaa gtcacaaaga 750
 ctataggcaa taatggagac cagtcccaca agatgacaac cagtcgttgt 800
 gtgcggctga tgttaatcag catggccaat gatttgaaag aagtttggat 850
 ctcagaacaa cctttcttgt tagtaacata tttgtggcaa tacatgcca 900
 cctgggcctg gtggataacc aacaagatgg ggaagaaaag gattgagaac 950
 ttttaagagt gtgtggatgc agactcttct tattttaaaa tctttaagac 1000
 aaaacatgac tgaaaagagc acctgtactt ttcaagccac tggagggaga 1050
 aatggaaaac atgaaaacag caatcttctt atgcttctga ataatacaag 1100
 actaatttgt gattttactt ttttaatagat atgactttgc ttccaacatg 1150
 gaatgaaata aaaaataaat aataaaagat tgccatgaat cttgcaaaa 1199

<210> 124

<211> 289

<212> PRT

<213> Homo sapiens

<400> 124

Met	Val	Val	Trp	Val	Thr	Gly	Ala	Ser	Ser	Gly	Ile	Gly	Glu	Glu
1				5					10					15

Leu	Ala	Tyr	Gln	Leu	Ser	Lys	Leu	Gly	Val	Ser	Leu	Val	Leu	Ser
				20					25					30

Ala	Arg	Arg	Val	His	Glu	Leu	Glu	Arg	Val	Lys	Arg	Arg	Cys	Leu
				35					40					45

Glu	Asn	Gly	Asn	Leu	Lys	Glu	Lys	Asp	Ile	Leu	Val	Leu	Pro	Leu
				50					55					60

Asp	Leu	Thr	Asp	Thr	Gly	Ser	His	Glu	Ala	Ala	Thr	Lys	Ala	Val
				65					70					75

Leu	Gln	Glu	Phe	Gly	Arg	Ile	Asp	Ile	Leu	Val	Asn	Asn	Gly	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

80										85					90				
Met	Ser	Gln	Arg	Ser	Leu	Cys	Met	Asp	Thr	Ser	Leu	Asp	Val	Tyr					
				95					100					105					
Arg	Lys	Leu	Ile	Glu	Leu	Asn	Tyr	Leu	Gly	Thr	Val	Ser	Leu	Thr					
				110					115					120					
Lys	Cys	Val	Leu	Pro	His	Met	Ile	Glu	Arg	Lys	Gln	Gly	Lys	Ile					
				125					130					135					
Val	Thr	Val	Asn	Ser	Ile	Leu	Gly	Ile	Ile	Ser	Val	Pro	Leu	Ser					
				140					145					150					
Ile	Gly	Tyr	Cys	Ala	Ser	Lys	His	Ala	Leu	Arg	Gly	Phe	Phe	Asn					
				155					160					165					
Gly	Leu	Arg	Thr	Glu	Leu	Ala	Thr	Tyr	Pro	Gly	Ile	Ile	Val	Ser					
				170					175					180					
Asn	Ile	Cys	Pro	Gly	Pro	Val	Gln	Ser	Asn	Ile	Val	Glu	Asn	Ser					
				185					190					195					
Leu	Ala	Gly	Glu	Val	Thr	Lys	Thr	Ile	Gly	Asn	Asn	Gly	Asp	Gln					
				200					205					210					
Ser	His	Lys	Met	Thr	Thr	Ser	Arg	Cys	Val	Arg	Leu	Met	Leu	Ile					
				215					220					225					
Ser	Met	Ala	Asn	Asp	Leu	Lys	Glu	Val	Trp	Ile	Ser	Glu	Gln	Pro					
				230					235					240					
Phe	Leu	Leu	Val	Thr	Tyr	Leu	Trp	Gln	Tyr	Met	Pro	Thr	Trp	Ala					
				245					250					255					
Trp	Trp	Ile	Thr	Asn	Lys	Met	Gly	Lys	Lys	Arg	Ile	Glu	Asn	Phe					
				260					265					270					
Lys	Ser	Gly	Val	Asp	Ala	Asp	Ser	Ser	Tyr	Phe	Lys	Ile	Phe	Lys					
				275					280					285					
Thr	Lys	His	Asp																

<210> 125

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 125

gcaatgaact gggagctgc 19

<210> 126

<211> 19

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Synthetic oligonucleotide probe

<400> 126

ctgtgaatag catcctggg 19

<210> 127

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 127

cttttcaagc cactggaggg 20

<210> 128

<211> 24

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Synthetic oligonucleotide probe

<400> 128

ctgtagacat ccaagctggt atcc 24

<210> 129

<211> 23

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Synthetic oligonucleotide probe

<400> 129

aagagtctgc atccacacca ctc 23

 $\langle 210 \rangle$ 130

<211> 46

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Synthetic oligonucleotide probe

$\langle 400 \rangle$ 130

acctgacgct actatgggcc gagtggcagg gacgacgcc agaattg 46

<210> 131

<211> 2365

<212> DNA

<213> Homo sapiens

<400> 131

gcgacgtggg caccgccatc agctgttcgc gegtcttctc ctccaggtgg 50
ggcagggggtt tggggtggt ggagcatgtg ctgggacagg acagcatcct 100
caatcaatcc aacagcatat tcggttgcat cttctacaca ctacagctat 150
tgtaggttg cctgcggaca cgctgggcct ctgtcctgat gctgctgagc 200
tcctggtgt ctctcgctgg ttctgtctac ctggcctgga tcctgttctt 250
cgtgctctat gatttctgca ttgtttgtat caccacctat gctatcaacg 300
tgagcctgat gtggctcagt ttccggaagg tccaagaacc ccagggcaag 350
gctaagaggc actgagccct caaccaagc caggctgacc tcctctgctt 400
tgctttggtc ttcaagccgc tcagcgtgcc tgtggacagc gtggccccgg 450
ccccccaag cctcaggagg gcaacacagt ccctggcgag tggccctggc 500
aggccagtgt gaggaggcaa ggagcccaca tctgcagcgg ctccctggtg 550
gcagacacct gggctctcac tgctgccac tgctttgaaa aggagcagc 600
aacagaactg aattcctggt cagtggctct gggttctctg cagcgtgagg 650
gactcagccc tggggccgaa gaggtggggg tggctgccct gcagttgcc 700
agggcctata accactacag ccagggtca gacctggccc tgctgcagct 750
cgcccccccc acgaccaca caccctctg cctgccccag cccgccatc 800
gcttccccct tggagcctcc tgctgggcca ctggctggga tcaggacacc 850
agtgatgctc ctgggaccct acgcaatctg cgcctgcgtc tcctcagtcg 900
ccccacatgt aactgtatct acaaccagct gcaccagcga cacctgtcca 950
acccgccccg gcctgggatg ctatgtgggg gccccagcc tggggtgcag 1000
ggccccctgtc agggagattc cgggggccct gtgctgtgcc tcgagcctga 1050
cggacactgg gttcaggctg gcatcatcag ctttgcatca agctgtgccc 1100
aggaggacgc tcctgtgctg ctgaccaaca cagctgctca cagttcctgg 1150
ctgcaggctc gagttcaggg ggcagcttct ctggcccaga gccagagac 1200
ccggagatg agtgatgagg acagctgtgt agcctgtgga tccttgagga 1250
cagcaggtcc ccaggcagga gcaccctccc catggccctg ggaggccagg 1300
ctgatgcacc agggacagct ggctgtggc ggagccctgg tgtcagagga 1350
ggcggtgcta actgctgcc actgcttcat tgggcgccag gccccagagg 1400
aatggagcgt agggctgggg accagaccgg aggagtgggg cctgaagcag 1450

ctcatcctgc atggagccta caccaccct gaggggggct acgacatggc 1500
 cctcctgctg ctggcccagc ctgtgacact gggagccagc ctgcggcccc 1550
 tctgcctgcc ctatcctgac caccacctgc ctgatgggga gctggtctgg 1600
 gttctgggac gggcccgcgc aggagcaggc atcagctccc tccagacagt 1650
 gcccgtagcc ctctgggggc ctagggcctg cagccggctg catgcagctc 1700
 ctgggggtga tggcagccct attctgccgg ggatgggtgtg taccagtgt 1750
 gtgggtgagc tgcccagctg tgagggcctg tctggggcac cactggtgca 1800
 tgaggtgagg ggcacatggt tcctggccgg gctgcacagc ttcggagatg 1850
 cttgccaaagg ccccgcagg cgggcgtct tcaccgcgt cctgcctat 1900
 gaggactggg tcagcagttt ggactggcag gtctacttcg ccgaggaacc 1950
 agagcccag gctgagcctg gaagctgcct ggccaacata agccaaccaa 2000
 ccagctgctg acaggggacc tggccattct caggacaaga gaatgcaggc 2050
 aggcaaatgg cattactgcc cctgtcctcc ccaccctgtc atgtgtgatt 2100
 ccaggcacca gggcaggccc agaagcccag cagctgtggg aaggaacctg 2150
 cctggggcca caggtgcca cccccaccc tgcaggacag ggtgtctgt 2200
 ggacactccc acaccact ctgctaccaa gcaggcgtct cagctttcct 2250
 cctcctttac tctttcagat acaatcacgc cagccacgtt gttttgaaaa 2300
 tttctttttt tggggggcag cagttttcct ttttttaaac ttaaataaat 2350
 tgttacaaaa taaaa 2365

<210> 132
 <211> 571
 <212> PRT
 <213> Homo sapiens

<400> 132
 Met Leu Leu Ser Ser Leu Val Ser Leu Ala Gly Ser Val Tyr Leu
 1 5 10 15
 Ala Trp Ile Leu Phe Phe Val Leu Tyr Asp Phe Cys Ile Val Cys
 20 25 30
 Ile Thr Thr Tyr Ala Ile Asn Val Ser Leu Met Trp Leu Ser Phe
 35 40 45
 Arg Lys Val Gln Glu Pro Gln Gly Lys Ala Lys Arg His Gly Asn
 50 55 60
 Thr Val Pro Gly Glu Trp Pro Trp Gln Ala Ser Val Arg Arg Gln
 65 70 75

	365		370		375
Thr Arg Pro Glu	Glu Trp Gly Leu Lys	Gln Leu Ile Leu His	Gly		
	380	385	390		
Ala Tyr Thr His	Pro Glu Gly Gly Tyr	Asp Met Ala Leu Leu	Leu		
	395	400	405		
Leu Ala Gln Pro	Val Thr Leu Gly Ala	Ser Leu Arg Pro Leu	Cys		
	410	415	420		
Leu Pro Tyr Pro	Asp His His Leu Pro	Asp Gly Glu Arg Gly	Trp		
	425	430	435		
Val Leu Gly Arg	Ala Arg Pro Gly Ala	Gly Ile Ser Ser Leu	Gln		
	440	445	450		
Thr Val Pro Val	Thr Leu Leu Gly Pro	Arg Ala Cys Ser Arg	Leu		
	455	460	465		
His Ala Ala Pro	Gly Gly Asp Gly Ser	Pro Ile Leu Pro Gly	Met		
	470	475	480		
Val Cys Thr Ser	Ala Val Gly Glu Leu	Pro Ser Cys Glu Gly	Leu		
	485	490	495		
Ser Gly Ala Pro	Leu Val His Glu Val	Arg Gly Thr Trp Phe	Leu		
	500	505	510		
Ala Gly Leu His	Ser Phe Gly Asp Ala	Cys Gln Gly Pro Ala	Arg		
	515	520	525		
Pro Ala Val Phe	Thr Ala Leu Pro Ala	Tyr Glu Asp Trp Val	Ser		
	530	535	540		
Ser Leu Asp Trp	Gln Val Tyr Phe Ala	Glu Glu Pro Glu Pro	Glu		
	545	550	555		
Ala Glu Pro Gly	Ser Cys Leu Ala Asn	Ile Ser Gln Pro Thr	Ser		
	560	565	570		

Cys

<210> 133

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 133

cctgtgctgt gcctcgagcc tgac 24

<210> 134

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 134

gtgggcagca gtttagcaccg cctc 24

<210> 135

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 135

ggctggcatc atcagctttg catcaagctg tgcccaggag gacgc 45

<210> 136

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 136

cgggcccggc cgggccccca ttcgggccgg gcctcgtgc ggcggcgact 50

gagccaggct gggccgcgtc cctgagtccc agagtcggcg cggcgcgcca 100

ggggcagcct tccaccacgg ggagcccagc tgtcagccgc ctcacaggaa 150

gatgctgctg cggcggggca gccctggcat ggggtgtcat gtgggtgcag 200

ccctgggagc actgtggttc tgcctcacag gagccctgga ggtccaggtc 250

cctgaagacc cagtgggtggc actgggtggc accgatgcca ccctgtgctg 300

ctccttctcc cctgagcctg gcttcagcct ggcacagctc aacctcatct 350

ggcagctgac agatacaaaa cagctggtgc acagctttgc tgagggccag 400

gaccagggca gcgcctatgc caaccgcag gccctcttcc cggacctgct 450

ggcacagggc aacgcatccc tgaggctgca gcgcgtgctg gtggcggacg 500

agggcagctt cacctgcttc gtgagcatcc gggatttcgg cagcgctgcc 550

gtcagcctgc aggtggccgc tccctactcg aagcccagca tgaccctgga 600

gccaacaag gacctgcggc caggggacac ggtgaccatc acgtgctcca 650

gctaccaggg ctaccctgag gctgaggtgt tctggcagga tgggcagggt 700

gtgcccctga ctggcaacgt gaccacgtcg cagatggcca acgagcagg 750

cttgtttgat gtgcacagcg tcctgcgggt ggtgctgggt gcgaatggca 800

cctacagctg cctggtgcgc aaccccgtgc tgcagcagga tgcgcacrgc 850

tctgtcacca tcacagggca gcctatgaca ttccccccag aggccctgtg 900
 ggtgaccgtg gggctgtctg tctgtctcat tgcactgctg gtggccctgg 950
 ctttcgtgtg ctggagaaag atcaaacaga gctgtgagga ggagaatgca 1000
 ggagctgagg accaggatgg ggaggagaa ggctccaaga cagccctgca 1050
 gcctctgaaa cactctgaca gcaaagaaga tgatggacaa gaaatagcct 1100
 gaccatgagg accagggagc tgctaccctt ccctacagct cctaccctct 1150
 ggctgcaatg gggctgcact gtgagccctg cccccaacag atgcatcctg 1200
 ctctgacagg tgggctcctt ctccaaagga tgcgatacac agaccactgt 1250
 gcagccttat ttctccaatg gacatgatto ccaagtcata ctgctgcctt 1300
 ttttcttata gacacaatga acagaccacc cacaacctta gttctctaag 1350
 tcatacctgcc tgctgcctta ttacacagta catacatttc ttagggacac 1400
 agtacactga ccacatcacc accctcttct tccagtgtg cgtggacat 1450
 ctggctgcct tttttctcca aaagatgcaa tattcagact gactgacccc 1500
 ctgccttatt tcaccaaaga cagcatgcat agtcaccccg gccttgtttc 1550
 tccaatggcc gtgatacact agtgatcatg ttcagccctg cttccacctg 1600
 catagaatct tttcttctca gacagggaca gtgcggcctc aacatctcct 1650
 ggagtctaga agctgtttcc tttccctcc ttcctccctg cccaagtga 1700
 agacagggca gggccaggaa tgctttgggg acaccgagg gactgcccc 1750
 cccccacc atggtgctat tctggggctg gggcagtctt ttcctggctt 1800
 gcctctggcc agctcctggc ctctggtaga gtgagacttc agacgttctg 1850
 atgccttccg gatgtcatct ctccctgcc caggaatgga agatgtgagg 1900
 acttctaatt taaatgtggg actcggaggg attttgtaaa ctgggggtat 1950
 attttgggga aaataaatgt ctttgtaaaa aaaaaaaaaa aaaaaaaa 1998

<210> 137

<211> 316

<212> PRT

<213> Homo sapiens

<220>

<221> unsure

<222> 233

<223> unknown amino acid

<400> 137

Met Leu Arg Arg Arg Gly Ser Pro Gly Met Gly Val His Val Gly

1	5	10	15
Ala Ala Leu Gly	Ala Leu Trp Phe Cys	Leu Thr Gly Ala Leu	Glu
20		25	30
Val Gln Val Pro	Glu Asp Pro Val Val	Ala Leu Val Gly Thr	Asp
35		40	45
Ala Thr Leu Cys	Cys Ser Phe Ser Pro	Glu Pro Gly Phe Ser	Leu
50		55	60
Ala Gln Leu Asn	Leu Ile Trp Gln Leu	Thr Asp Thr Lys Gln	Leu
65		70	75
Val His Ser Phe	Ala Glu Gly Gln Asp	Gln Gly Ser Ala Tyr	Ala
80		85	90
Asn Arg Thr Ala	Leu Phe Pro Asp Leu	Leu Ala Gln Gly Asn	Ala
95		100	105
Ser Leu Arg Leu	Gln Arg Val Arg Val	Ala Asp Glu Gly Ser	Phe
110		115	120
Thr Cys Phe Val	Ser Ile Arg Asp Phe	Gly Ser Ala Ala Val	Ser
125		130	135
Leu Gln Val Ala	Ala Pro Tyr Ser Lys	Pro Ser Met Thr Leu	Glu
140		145	150
Pro Asn Lys Asp	Leu Arg Pro Gly Asp	Thr Val Thr Ile Thr	Cys
155		160	165
Ser Ser Tyr Gln	Gly Tyr Pro Glu Ala	Glu Val Phe Trp Gln	Asp
170		175	180
Gly Gln Gly Val	Pro Leu Thr Gly Asn	Val Thr Thr Ser Gln	Met
185		190	195
Ala Asn Glu Gln	Gly Leu Phe Asp Val	His Ser Val Leu Arg	Val
200		205	210
Val Leu Gly Ala	Asn Gly Thr Tyr Ser	Cys Leu Val Arg Asn	Pro
215		220	225
Val Leu Gln Gln	Asp Ala His Xaa Ser	Val Thr Ile Thr Gly	Gln
230		235	240
Pro Met Thr Phe	Pro Pro Glu Ala Leu	Trp Val Thr Val Gly	Leu
245		250	255
Ser Val Cys Leu	Ile Ala Leu Leu Val	Ala Leu Ala Phe Val	Cys
260		265	270
Trp Arg Lys Ile	Lys Gln Ser Cys Glu	Glu Glu Asn Ala Gly	Ala
275		280	285
Glu Asp Gln Asp	Gly Glu Gly Glu Gly	Ser Lys Thr Ala Leu	Gln
290		295	300

Pro	Leu	Lys	His	Ser	Asp	Ser	Lys	Glu	Asp	Asp	Gly	Gln	Glu	Ile
				305					310					315

Ala

<210> 138

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 138

ctggcacagc tcaacctcat ctgg 24

<210> 139

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 139

gctgtctgtc tgtctcattg 20

<210> 140

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 140

ggacacagta tactgaccac 20

<210> 141

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 141

tgcgaccag gcagctgtaa gtgc 24

<210> 142

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

05970501-20230605

gagggcagtc atctttaag aacattttat tttatacaa tgttctttct 900
tgctttgttt tttattttta tatatttttt ctgactccta tttaaagaac 950
cccttagggt tctaagtacc catttctttc tgataagtta ttgggaagaa 1000
aaagctaatt ggtctttgaa tagaagactt ctggacaatt tttcactttc 1050
acagatatga agctttgttt tactttctca cttataaatt taaaatgttg 1100
caactgggaa tataccacga catgagacca gggtatagca caaattagca 1150
ccctatattt ctgcttcctt ctattttctc caagttagag gtcaacattt 1200
gaaaagcctt ttgcaatagc ccaaggcttg ctattttcat gttataatga 1250
aatagtttat gtgtaactgg ctctgagtct ctgcttgagg accagaggaa 1300
aatggttggt ggacctgact tgttaatggc tactgcttta ctaaggagat 1350
gtgcaatgct gaagttagaa acaaggttaa tagccaggca tgggtggctca 1400
tgcttgtaat ccagcactt tgggaggctg aggcgggcgg atcacctgag 1450
gttgggagtt cgagaccagc ctgaccaaca cggagaaacc ctatctctac 1500
taaaaataca aagtagcccg gcgtggtgat gcgtgcctgt aatcccagct 1550
accaggaag gctgaggcgg cagaatcaat tgaacccgag gccgagggtg 1600
cgtaagccg agatcacctn cagcctggac actctgtctc gaaaaaagaa 1650
aagaacacgg ttaataccat atnaatatgt atgcattgag acatgctacc 1700
taggacttaa gctgatgaag cttggctcct agtgattggt ggcctattat 1750
gataaatagg acaaatcatt tatgtgtgag tttctttgta ataaaatgta 1800
tcaatatggt atagatgagg tagaaagtta tatttatatt caatatttac 1850
ttcttaaggc tagcggaata tccttcctgg ttctttaatg ggtagtctat 1900
agtatattat actacaataa cattgtatca taagataaag tagtaaacca 1950
gtctacattt tcccatttct gtctcatcaa aaactgaagt tagctgggtg 2000
tgggtggctca tgcttgtaat ccagcactt tgggggccaa ggagggtgga 2050
tcacttgaga tcaggagttc aagaccagcc tggccaacat ggtgaaacct 2100
tgtctctact aaaaatacaa aaattagcca ggcgtggtgg tgcacacctg 2150
tagtcccagc tactcgggag gctgagacag gagatttgct tgaacccggg 2200
aggcggaggt tgcagtgagc caagattgtg ccactgcact ccagcctggg 2250
tgacagagca agactccatc tcaaaaaaaaa aaaaaagaag cagacctaca 2300

gcagctacta ttgaataaat acctatcctg gatttt 2336

<210> 145

<211> 211

<212> PRT

<213> Homo sapiens

<400> 145

Met Arg Leu Phe Leu Trp Asn Ala Val Leu Thr Leu Phe Val Thr
1 5 10 15

Ser Leu Ile Gly Ala Leu Ile Pro Glu Pro Glu Val Lys Ile Glu
20 25 30

Val Leu Gln Lys Pro Phe Ile Cys His Arg Lys Thr Lys Gly Gly
35 40 45

Asp Leu Met Leu Val His Tyr Glu Gly Tyr Leu Glu Lys Asp Gly
50 55 60

Ser Leu Phe His Ser Thr His Lys His Asn Asn Gly Gln Pro Ile
65 70 75

Trp Phe Thr Leu Gly Ile Leu Glu Ala Leu Lys Gly Trp Asp Gln
80 85 90

Gly Leu Lys Gly Met Cys Val Gly Glu Lys Arg Lys Leu Ile Ile
95 100 105

Pro Pro Ala Leu Gly Tyr Gly Lys Glu Gly Lys Gly Lys Ile Pro
110 115 120

Pro Glu Ser Thr Leu Ile Phe Asn Ile Asp Leu Leu Glu Ile Arg
125 130 135

Asn Gly Pro Arg Ser His Glu Ser Phe Gln Glu Met Asp Leu Asn
140 145 150

Asp Asp Trp Lys Leu Ser Lys Asp Glu Val Lys Ala Tyr Leu Lys
155 160 165

Lys Glu Phe Glu Lys His Gly Ala Val Val Asn Glu Ser His His
170 175 180

Asp Ala Leu Val Glu Asp Ile Phe Asp Lys Glu Asp Glu Asp Lys
185 190 195

Asp Gly Phe Ile Ser Ala Arg Glu Phe Thr Tyr Lys His Asp Glu
200 205 210

Leu

<210> 146

<211> 26

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 146
ctttccttgc ttcagcaaca tgaggc 26

<210> 147
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 147
gcccagagca ggaggaatga tgagc 25

<210> 148
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 148
gtggaacgcg gtcttgactc tggtcgtcac ttctttgatt ggggctttg 49

<210> 149
<211> 2196
<212> DNA
<213> Homo sapiens

<400> 149
aataaagctt ccttaatggt gtatatgtct ttgaagtaca tccgtgcatt 50
tttttttagc atccaacat tcttcccttg tagttctcgc cccctcaa 100
caccctctcc cgtagccac ccgactaaca tctcagtctc tgaaaatgca 150
cagagatgcc tggctacctc gccctgcctt cagcctcacg gggctcagtc 200
tctttttctc tttggtgcca ccaggacgga gcatggaggt cacagtacct 250
gccaccctca acgtcctcaa tggctctgac gccgcctgc cctgcacctt 300
caactcctgc tacacagtga accacaaaca gttctccctg aactggactt 350
accaggagtg caacaactgc tctgaggaga tgttcctcca gttccgcatg 400
aagatcatta acctgaagct ggagcgggtt caagaccgcg tggagttctc 450
aggggaacccc agcaagtacg atgtgtcggg gatgctgaga aacgtgcagc 500
cggaggatga ggggatttac aactgctaca tcatgaaccc cctgaccgc 550
caccgtggcc atggcaagat ccatctgcag gtcctcatgg aagagcccc 600

tgagcgggac tccacggtgg ccgtgattgt ggggtgcctcc gtcgggggct 650
 tcctggctgt ggtcatcttg gtgctgatgg tggtaagtgt tgtgaggaga 700
 aaaaaagagc agaagctgag cacagatgac ctgaagaccg aggaggaggg 750
 caagacggac ggtgaaggca acccgatga tggcgccaag tagtggttgg 800
 ccggccctgc agcctcccgt gtcccgtctc ctcccctctc cggcctgtac 850
 agtgaccctg cctgctcgtt cttggtgtgc ttcccgtgac ctaggacccc 900
 agggcccacc tggggcctcc tgaacccccg acttcgtatc tcccaccctg 950
 caccaagagt gacccactct cttccatccg agaaacctgc catgctcttg 1000
 gacgtgtggg ccctggggag aggagagaaa gggctccac ctgccagtcc 1050
 ctgggggggag gcaggaggca catgtgaggg tcccagaga gaaggagtg 1100
 ggtgggcagg ggtagaggag gggccgctgt cacctgcca gtgcttgctt 1150
 ggcagtggct tcagagagga cctggtgggg agggagggct ttctgtgtct 1200
 gacagcgtc cctcaggagg gccttggcct ggcacggctg tgctcctccc 1250
 ctgctcccag ccagagcag ccatcaggct ggaggtgacg atgagttcct 1300
 gaaacttgga ggggcatgtt aaagggatga ctgtgcattc cagggcaactg 1350
 acggaaagcc agggctgcag gcaaagctgg acatgtgcc tggcccagga 1400
 ggccatgttg ggccctcgtt tccattgcta gtggcctcct tggggctcct 1450
 gttggctcct aatcccttag gactgtggat gaggccagac tggaagagca 1500
 gctccaggta gggggccatg tttcccagcg gggaccacc aacagaggcc 1550
 agtttcaaag tcagctgagg ggctgagggg tggggctcca tggatgaatgc 1600
 aggttgctgc aggtctctgc ttctccatgg ggtaaccacc ctgcctggg 1650
 caggggcagc caaggctggg aatgaggag gccatgcaca gggtagggca 1700
 gctttctttg gggcttcagt gagaactctc ccagttgcc ttggtgggg 1750
 ttccacctgg cttttggcta cagagagga agggaaagcc tgaggccggc 1800
 ataaggggag gccttggaac ctgagctgcc aatgccagcc ctgtcccatc 1850
 tgcggccacg ctactcgtc ctctcccaac aactcccttc gtggggacaa 1900
 aagtgacaat tgtaggccag gcacagtggc tcacgcctgt aatcccagca 1950
 ctttgggagg ccaaggcggg tggattacct ccatctgttt agtagaaatg 2000
 ggcaaaaccc catctctact aaaaatacaa gaattagctg ggcgtggtgg 2050

cgtgtgcctg taatcccagc tatttgggag gctgaggcag gagaatcgct 2100
 tgagccccggg aagcagaggt tgcagtgaac tgagatagtg atagtgccac 2150
 tgcaattcag cctgggtgac atagagagac tccatctcaa aaaaaa 2196

<210> 150
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 150
 Met His Arg Asp Ala Trp Leu Pro Arg Pro Ala Phe Ser Leu Thr
 1 5 10 15
 Gly Leu Ser Leu Phe Phe Ser Leu Val Pro Pro Gly Arg Ser Met
 20 25 30
 Glu Val Thr Val Pro Ala Thr Leu Asn Val Leu Asn Gly Ser Asp
 35 40 45
 Ala Arg Leu Pro Cys Thr Phe Asn Ser Cys Tyr Thr Val Asn His
 50 55 60
 Lys Gln Phe Ser Leu Asn Trp Thr Tyr Gln Glu Cys Asn Asn Cys
 65 70 75
 Ser Glu Glu Met Phe Leu Gln Phe Arg Met Lys Ile Ile Asn Leu
 80 85 90
 Lys Leu Glu Arg Phe Gln Asp Arg Val Glu Phe Ser Gly Asn Pro
 95 100 105
 Ser Lys Tyr Asp Val Ser Val Met Leu Arg Asn Val Gln Pro Glu
 110 115 120
 Asp Glu Gly Ile Tyr Asn Cys Tyr Ile Met Asn Pro Pro Asp Arg
 125 130 135
 His Arg Gly His Gly Lys Ile His Leu Gln Val Leu Met Glu Glu
 140 145 150
 Pro Pro Glu Arg Asp Ser Thr Val Ala Val Ile Val Gly Ala Ser
 155 160 165
 Val Gly Gly Phe Leu Ala Val Val Ile Leu Val Leu Met Val Val
 170 175 180
 Lys Cys Val Arg Arg Lys Lys Glu Gln Lys Leu Ser Thr Asp Asp
 185 190 195
 Leu Lys Thr Glu Glu Glu Gly Lys Thr Asp Gly Glu Gly Asn Pro
 200 205 210
 Asp Asp Gly Ala Lys
 215

<210> 151

<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 103, 233
<223> unknown base

<400> 151
gttgatatg tctgaagta catccgtgca ttttttttag catccaacca 50
tcttcccttg tagttctcgc cccctcaaat caccttctcc cttagcccac 100
ccnactaaca tctcagtctc tgaaaatgca cagagatgcc tggctacctc 150
gccttgccct cagcctcacg gggctcagtc tctttttctc tttggtgcc 200
ccaggacgga gcatggaggt ccacagtacc tgnccaccct caacgtctc 250
aatggctctg acgcccgcct gccctgccct tcaactcctg ctacacagt 300
aaccacaaac agttctccct gaactggact taccaggagt gcaacaactg 350
ctctgaggag atgttctctc agttccgcat gaagatcatt aacctgaagc 400
tggagcgggt tcaagaccgc gtggagttct caggaaccc cagcaagtac 450
gatgtgtcgg tgatgctgag aaacgtgcag ccggaggatg aggggattta 500
caactgctac atcatgaacc cccc 524

<210> 152
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 56, 123
<223> unknown base

<400> 152
tcacggggct catctctttt tctctttggt gcccaccagg acggagcatg 50
gaggtncaca tacctgccac cctcaacgtc ctcaatggt ttgacgccg 100
cctgcctgc accttcaact ccngctacac agtgaaccac aaacagttct 150
ccctgaactg gatttaccag gagtgcaaca actggctctg aggagatgtt 200
cctccagttc ccgcatggaa gatcatttaa cctgaaagct ggaagcgggt 250
ttcaagaacc gcgtggaagt ttctcaggga accccagcaa gtacgatgtg 300
tcggtgatgc tgagaaacgt gcagccggag gatgagggga tttaactg 350
ctacatcatg aaccccc 368

<210> 153
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 153
acggagcatg gaggtccaca gtac 24

<210> 154
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 154
gcacgtttct cagcatcacc gac 23

<210> 155
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 155
cgccctgccct gcaccttcaa ctctgtctac acagtgaacc acaaacagtt 50

<210> 156
<211> 2680
<212> DNA
<213> Homo sapiens

<400> 156
tgcggcgacc gtcgtacacc atgggcctcc acctccgccc ctaccgtgtg 50
gggctgctcc cggatggcct cctgttcctc ttgctgctgc taatgctgct 100
cgcggaacca gcgctcccg cggacgtca cccccagtg gtgctggtcc 150
ctggtgattt gggtaaccaa ctggaagcca agctggacaa gccgacagt 200
gtgcactacc tctgctcaa gaagaccgaa agctacttca caatctggct 250
gaacctggaa ctgctgctgc ctgtcatcat tgactgctgg attgacaata 300
tcaggctggt ttacaacaaa acatccaggg ccaccagtt tctgatggt 350
gtggatgtac gtgtccctgg ctttggaag accttctcac tggagttcct 400
ggacccagc aaaagcagcg tgggttccta tttccacacc atggtggaga 450
gccttggtgg ctggggctac acacggggtg aggatgtccg aggggctccc 500

ccccagttcc cgcaggctgt gttccagggg ccctgatttc ctcggtatgtg 2000
ctattggccc caggactgaa gctgcctccc ttcaccctgg gactgtgggtt 2050
ccaaggatga gagcaggggt tggagccatg gccttctggg aacctatgga 2100
gaaaggaat ccaaggaagc agccaaggct gctcgcagct tccctgagct 2150
gcacctcttg ctaaccccac catcacactg ccaccctgcc ctagggtctc 2200
actagtacca agtgggtcag cacagggctg aggatggggc tcctatccac 2250
cctggccagc acccagctta gtgctgggac tagcccagaa acttgaatgg 2300
gacctgaga gagccagggg tcccctgagg ccccctagg ggctttctgt 2350
ctgccccagg gtgctccatg gatctccctg tggcagcagg catggagagt 2400
cagggctgcc ttcattggcag taggtcttaa gtgggtgact ggccacaggc 2450
cgagaaaagg gtacagcctc taggtggggg tcccaaagac gccttcaggc 2500
tggactgagc tgctctccca cagggtttct gtgcagctgg attttctctg 2550
ttgcatacat gcttgccatc tgtctccctt tgttctctgag tggccccaca 2600
tggggctctg agcaggctgt atctggattc tggcaataaa agtactctgg 2650
atgctgtaaa aaaaaaaaaa aaaaaaaaaa 2680

<210> 157
<211> 412
<212> PRT
<213> Artificial

<400> 157
Met Gly Leu His Leu Arg Pro Tyr Arg Val Gly Leu Leu Pro Asp
1 5 10 15
Gly Leu Leu Phe Leu Leu Leu Leu Leu Met Leu Leu Ala Asp Pro
20 25 30
Ala Leu Pro Ala Gly Arg His Pro Pro Val Val Leu Val Pro Gly
35 40 45
Asp Leu Gly Asn Gln Leu Glu Ala Lys Leu Asp Lys Pro Thr Val
50 55 60
Val His Tyr Leu Cys Ser Lys Lys Thr Glu Ser Tyr Phe Thr Ile
65 70 75
Trp Leu Asn Leu Glu Leu Leu Leu Pro Val Ile Ile Asp Cys Trp
80 85 90
Ile Asp Asn Ile Arg Leu Val Tyr Asn Lys Thr Ser Arg Ala Thr
95 100 105
Gln Phe Pro Asp Gly Val Asp Val Arg Val Pro Gly Phe Gly Lys

	110		115		120
Thr Phe Ser Leu	Glu Phe Leu Asp Pro	Ser Lys Ser Ser Val	Gly		
	125	130	135		
Ser Tyr Phe His	Thr Met Val Glu Ser	Leu Val Gly Trp Gly	Tyr		
	140	145	150		
Thr Arg Gly Glu	Asp Val Arg Gly Ala	Pro Tyr Asp Trp Arg	Arg		
	155	160	165		
Ala Pro Asn Glu	Asn Gly Pro Tyr Phe	Leu Ala Leu Arg Glu	Met		
	170	175	180		
Ile Glu Glu Met	Tyr Gln Leu Tyr Gly	Gly Pro Val Val Leu	Val		
	185	190	195		
Ala His Ser Met	Gly Asn Met Tyr Thr	Leu Tyr Phe Leu Gln	Arg		
	200	205	210		
Gln Pro Gln Ala	Trp Lys Asp Lys Tyr	Ile Arg Ala Phe Val	Ser		
	215	220	225		
Leu Gly Ala Pro	Trp Gly Gly Val Ala	Lys Thr Leu Arg Val	Leu		
	230	235	240		
Ala Ser Gly Asp	Asn Asn Arg Ile Pro	Val Ile Gly Pro Leu	Lys		
	245	250	255		
Ile Arg Glu Gln	Gln Arg Ser Ala Val	Ser Thr Ser Trp Leu	Leu		
	260	265	270		
Pro Tyr Asn Tyr	Thr Trp Ser Pro Glu	Lys Val Phe Val Gln	Thr		
	275	280	285		
Pro Thr Ile Asn	Tyr Thr Leu Arg Asp	Tyr Arg Lys Phe Phe	Gln		
	290	295	300		
Asp Ile Gly Phe	Glu Asp Gly Trp Leu	Met Arg Gln Asp Thr	Glu		
	305	310	315		
Gly Leu Val Glu	Ala Thr Met Pro Pro	Gly Val Gln Leu His	Cys		
	320	325	330		
Leu Tyr Gly Thr	Gly Val Pro Thr Pro	Asp Ser Phe Tyr Tyr	Glu		
	335	340	345		
Ser Phe Pro Asp	Arg Asp Pro Lys Ile	Cys Phe Gly Asp Gly	Asp		
	350	355	360		
Gly Thr Val Asn	Leu Lys Ser Ala Leu	Gln Cys Gln Ala Trp	Gln		
	365	370	375		
Ser Arg Gln Glu	His Gln Val Leu Leu	Gln Glu Leu Pro Gly	Ser		
	380	385	390		
Glu His Ile Glu	Met Leu Ala Asn Ala	Thr Thr Leu Ala Tyr	Leu		
	395	400	405		

Lys Arg Val Leu Leu Gly Pro
410

<210> 158
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 158
ctggggctac acacggggtg agg 23

<210> 159
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 159
ggtgcoctg cagaaagtag agcg 24

<210> 160
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 160
gccccaaatg aaaacgggcc ctacttctg gccctccgag agatg 45

<210> 161
<211> 1512
<212> DNA
<213> Homo sapiens

<400> 161
cggacgcgtg ggcggacgcg tggggcgagg gcagcggcgg cgacggcgac 50
atggagagcg gggcctacgg cgcggccaag gcgggcggct ccttcgacct 100
gcggcgcttc ctgacgcagc cgcaggtggt ggcgcgcgcc gtgtgcttgg 150
tcttcgcctt gatcgtgttc tctgcatct atggtgagg ctacagcaat 200
gccacgagt ctaagcagat gtactgcgtg ttcaaccgca acgaggatgc 250
ctgccgctat ggcagtgcca tcgggggtgct ggccttcctg gcctcggcct 300
tcttcttggg ggtcgacgcg tatttcccc agatcagcaa cgccactgac 350
cgcaagtacc tggtcattgg tgacctgctc ttctcagctc tctggacctt 400

cctgtggttt gttggtttct gcttcctcac caaccagtgg gcagtcacca 450
 acccgaagga cgtgctggtg ggggccgact ctgtgagggc agccatcacc 500
 ttcagcttct tttccatctt ctctgggggt gtgctggcct ccctggccta 550
 ccagcgctac aaggctggcg tggacgactt catccagaat tacgttgacc 600
 ccactccgga ccccaacact gcctacgcct cctaccaggg tgcatctgtg 650
 gacaactacc aacagccacc cttcaccag aacgcggaga ccaccgaggg 700
 ctaccagccg cccctgtgt actgagtggc ggtagcgtg ggaaggggga 750
 cagagagggc cctccctctt gccctggact ttcccatcag cctcctggaa 800
 ctgccagccc ctctctttca cctgttccat cctgtgcagc tgacacacag 850
 ctaaggagcc tcatagcctg gcgggggctg gcagagccac accccaagtg 900
 cctgtgcccga gagggttca gtcagccgct cactcctcca gggcactttt 950
 aggaaagggg ttttagctag tgtttttctt cgcttttaat gacctcagcc 1000
 ccgcctgcag tggctagaag ccagcaggtg cccatgtgct actgacaagt 1050
 gcctcagctt cccccggcc cgggtcaggc cgtgggagcc gctattatct 1100
 gcgttctctg ccaaagactc gtgggggcca tcacacctgc cctgtgcagc 1150
 ggagccggac caggctcttg tgcctcact caggtttgct tcccctgtgc 1200
 ccaactgctgt atgatctggg ggccaccacc ctgtgccggt ggcctctggg 1250
 ctgcctcccg tgggtgtgagg gcggggctgg tgctcatggc acttcctcct 1300
 tgctcccacc cctggcagca gggaagggct ttgcctgaca acaccagct 1350
 ttatgtaaatt attctgcagt tgttacttag gaagcctggg gagggcaggg 1400
 gtgcccctatg gctcccagac tctgtctgtg ccgagtgtat tataaaatcg 1450
 tgggggagat gcccggcctg ggatgctgtt tggagacgga ataaatgttt 1500
 tctcattcaa ag 1512

<210> 162

<211> 224

<212> PRT

<213> Homo sapiens

<400> 162

Met	Glu	Ser	Gly	Ala	Tyr	Gly	Ala	Ala	Lys	Ala	Gly	Gly	Ser	Phe
1				5					10					15

Asp	Leu	Arg	Arg	Phe	Leu	Thr	Gln	Pro	Gln	Val	Val	Ala	Arg	Ala
				20					25					30

agaagatgct caaggagctc atcaccagca cccgcctggg aacttactac 450
 aactccagct ccgtctattc ctttggggag ggaccctca cctgcttctt 500
 ctggttcatt ctccaaatcc ccgagcaccg ccggtgatg ctgagccccg 550
 aggtggtgca ggcactgctg gtggaggagc tgctgtccac agtcaacagc 600
 tcggctgccg tcccctacag ggccgagtac gaagtggacc ccgagggcct 650
 agtgatcctg gaagccagtg tgaaagacat agctgcattg aattccacgc 700
 tgggttggtta ccgctacagc tacgtgggcc agggccaggt cctccggctg 750
 aaggggcctg accacctggc ctccagctgc ctgtggcacc tgcagggccc 800
 caaggacctc atgtcaaac tccggctgga gtggacgctg gcagagtgcc 850
 gggaccgact ggccatgtat gacgtggccg ggcccctgga gaagaggctc 900
 atcacctcgg tgtacggctg cagccgccag gagcccgtgg tggaggttct 950
 ggcgtcgggg gccatcatgg cggtcgtctg gaagaagggc ctgcacagct 1000
 actacgacct ctctgtgctc tccgtgcagc cgggtgtctt ccaggcctgt 1050
 gaagtgaacc tgacgtgga caacaggctc gactcccagg gcgtcctcag 1100
 cccccgtac ttccccagct actactcgcc ccaaaccac tgctcctggc 1150
 acctcacggt gccctctctg gactacggct tggccctctg gtttgatgcc 1200
 tatgcactga ggaggcagaa gtatgatttg ccgtgcacc agggccagt 1250
 gacgatccag aacaggaggc tgtgtggctt gcgcacctg cagccctacg 1300
 ccgagaggat ccccggtgtg gccacggccg ggatcaccat caacttcacc 1350
 tcccagatct cctcaccgg gcccggtgtg cgggtgcact atggcttgta 1400
 caaccagtgc gaccctgcc ctggagagtt cctctgttct gtgaatggac 1450
 tctgtgtccc tgctgtgat ggggtcaagg actgccccaa cggcctggat 1500
 gagagaaact gcgtttgcag agccacattc cagtgcaaag aggacagcac 1550
 atgcatctca ctgcccagg tctgtgatgg gcagcctgat tgtctcaacg 1600
 gcagcgatga agagcagtgc caggaagggg tgccatgtgg gacattcacc 1650
 ttccagtgtg aggaccggag ctgcgtgaag aagcccaacc cgagtgatga 1700
 tgggcgggcc gactgcagg acggctcgga tgaggagcac tgtgactgtg 1750
 gcctccaggg cccctccagc cgcattgttg gtggagctgt gtcctccag 1800
 ggtgagtggc catggcaggc cagcctccag gttcggggtc gacacatctg 1850

tggggggggcc ctcatcgctg accgctgggt gataacagct gccactgct 1900
 tccaggagga cagcatggcc tccacggtgc tgtggaccgt gttcctgggc 1950
 aaggtgtggc agaactcgcg ctggcctgga gaggtgtcct tcaaggtgag 2000
 ccgctgctc ctgcacccgt accacgaaga ggacagccat gactacgacg 2050
 tggcgctgct gcagctcgac caccggtgg tgcgctcggc cgccgtgcg 2100
 cccgtctgcc tgcccgcgcg ctcccacttc ttcgagcccg gcctgcaactg 2150
 ctggattacg ggctggggcg ccttgcgga gggcgggccc atcagcaacg 2200
 ctctgcagaa agtggatgtg cagttgatcc cacaggacct gtgcagcgag 2250
 gcctatcgct accaggtgac gccacgcatg ctgtgtgccg gctaccgcaa 2300
 gggcaagaag gatgcctgtc aggggtgactc aggtggtccg ctggtgtgca 2350
 aggcactcag tggccgctgg ttcttgccgg ggctggtcag ctggggcctg 2400
 ggctgtggcc ggctaacta cttcggcgctc tacacccgca tcacaggtgt 2450
 gatcagctgg atccagcaag tggtagctg aggaactgcc cccctgcaaa 2500
 gcagggccca cctcctggac tcagagagcc cagggcaact gccaagcagg 2550
 gggacaagta ttctggcggg ggggtggggga gagagcaggc cctgtggtgg 2600
 caggaggtgg catcttgtct cgtccctgat gtctgtcca gtgatggcag 2650
 gaggatggag aagtgccagc agctgggggt caagacgtcc cctgaggacc 2700
 caggcccaca ccagccctt ctgcctccca attctctctc ctccgtcccc 2750
 ttctccact gctgcctaata gcaaggcagt ggctcagcag caagaatgct 2800
 ggttctacat cccgaggagt gtctgaggtg cggccactc tgtacagagg 2850
 ctgtttgggc agccttgctt ccagagagca gattccagct tcggaagccc 2900
 ctggtctaac ttgggatctg ggaatggaag gtgctcccat cggaggggac 2950
 cctcagagcc ctggagactg ccaggtgggc ctgctgccac tgtaagccaa 3000
 aaggtgggga agtctgact ccaggtgctt tgccccaccc ctgcctgcca 3050
 cctgggccct cacagcccag accctcactg ggaggtgagc tcagctgccc 3100
 tttggaataa agctgcctga tcaaaaaaaaa aaaaaaaaaa aaa 3143

<210> 169
 <211> 802
 <212> PRT
 <213> Homo sapiens
 <400> 169

Met	Pro	Val	Ala	Glu	Ala	Pro	Gln	Val	Ala	Gly	Gly	Gln	Gly	Asp	
1				5					10					15	
Gly	Gly	Asp	Gly	Glu	Glu	Ala	Glu	Pro	Glu	Gly	Met	Phe	Lys	Ala	
				20					25					30	
Cys	Glu	Asp	Ser	Lys	Arg	Lys	Ala	Arg	Gly	Tyr	Leu	Arg	Leu	Val	
				35					40					45	
Pro	Leu	Phe	Val	Leu	Leu	Ala	Leu	Leu	Val	Leu	Ala	Ser	Ala	Gly	
				50					55					60	
Val	Leu	Leu	Trp	Tyr	Phe	Leu	Gly	Tyr	Lys	Ala	Glu	Val	Met	Val	
				65					70					75	
Ser	Gln	Val	Tyr	Ser	Gly	Ser	Leu	Arg	Val	Leu	Asn	Arg	His	Phe	
				80					85					90	
Ser	Gln	Asp	Leu	Thr	Arg	Arg	Glu	Ser	Ser	Ala	Phe	Arg	Ser	Glu	
				95					100					105	
Thr	Ala	Lys	Ala	Gln	Lys	Met	Leu	Lys	Glu	Leu	Ile	Thr	Ser	Thr	
				110					115					120	
Arg	Leu	Gly	Thr	Tyr	Tyr	Asn	Ser	Ser	Ser	Val	Tyr	Ser	Phe	Gly	
				125					130					135	
Glu	Gly	Pro	Leu	Thr	Cys	Phe	Phe	Trp	Phe	Ile	Leu	Gln	Ile	Pro	
				140					145					150	
Glu	His	Arg	Arg	Leu	Met	Leu	Ser	Pro	Glu	Val	Val	Gln	Ala	Leu	
				155					160					165	
Leu	Val	Glu	Glu	Leu	Leu	Ser	Thr	Val	Asn	Ser	Ser	Ala	Ala	Val	
				170					175					180	
Pro	Tyr	Arg	Ala	Glu	Tyr	Glu	Val	Asp	Pro	Glu	Gly	Leu	Val	Ile	
				185					190					195	
Leu	Glu	Ala	Ser	Val	Lys	Asp	Ile	Ala	Ala	Leu	Asn	Ser	Thr	Leu	
				200					205					210	
Gly	Cys	Tyr	Arg	Tyr	Ser	Tyr	Val	Gly	Gln	Gly	Gln	Val	Leu	Arg	
				215					220					225	
Leu	Lys	Gly	Pro	Asp	His	Leu	Ala	Ser	Ser	Cys	Leu	Trp	His	Leu	
				230					235					240	
Gln	Gly	Pro	Lys	Asp	Leu	Met	Leu	Lys	Leu	Arg	Leu	Glu	Trp	Thr	
				245					250					255	
Leu	Ala	Glu	Cys	Arg	Asp	Arg	Leu	Ala	Met	Tyr	Asp	Val	Ala	Gly	
				260					265					270	
Pro	Leu	Glu	Lys	Arg	Leu	Ile	Thr	Ser	Val	Tyr	Gly	Cys	Ser	Arg	
				275					280					285	
Gln	Glu	Pro	Val	Val	Glu	Val	Leu	Ala	Ser	Gly	Ala	Ile	Met	Ala	

				290					295					300
Val	Val	Trp	Lys	Lys 305	Gly	Leu	His	Ser	Tyr 310	Tyr	Asp	Pro	Phe	Val 315
Leu	Ser	Val	Gln	Pro 320	Val	Val	Phe	Gln	Ala 325	Cys	Glu	Val	Asn	Leu 330
Thr	Leu	Asp	Asn	Arg 335	Leu	Asp	Ser	Gln	Gly 340	Val	Leu	Ser	Thr	Pro 345
Tyr	Phe	Pro	Ser	Tyr 350	Tyr	Ser	Pro	Gln	Thr 355	His	Cys	Ser	Trp	His 360
Leu	Thr	Val	Pro	Ser 365	Leu	Asp	Tyr	Gly	Leu 370	Ala	Leu	Trp	Phe	Asp 375
Ala	Tyr	Ala	Leu	Arg 380	Arg	Gln	Lys	Tyr	Asp 385	Leu	Pro	Cys	Thr	Gln 390
Gly	Gln	Trp	Thr	Ile 395	Gln	Asn	Arg	Arg	Leu 400	Cys	Gly	Leu	Arg	Ile 405
Leu	Gln	Pro	Tyr	Ala 410	Glu	Arg	Ile	Pro	Val 415	Val	Ala	Thr	Ala	Gly 420
Ile	Thr	Ile	Asn	Phe 425	Thr	Ser	Gln	Ile	Ser 430	Leu	Thr	Gly	Pro	Gly 435
Val	Arg	Val	His	Tyr 440	Gly	Leu	Tyr	Asn	Gln 445	Ser	Asp	Pro	Cys	Pro 450
Gly	Glu	Phe	Leu	Cys 455	Ser	Val	Asn	Gly	Leu 460	Cys	Val	Pro	Ala	Cys 465
Asp	Gly	Val	Lys	Asp 470	Cys	Pro	Asn	Gly	Leu 475	Asp	Glu	Arg	Asn	Cys 480
Val	Cys	Arg	Ala	Thr 485	Phe	Gln	Cys	Lys	Glu 490	Asp	Ser	Thr	Cys	Ile 495
Ser	Leu	Pro	Lys	Val 500	Cys	Asp	Gly	Gln	Pro 505	Asp	Cys	Leu	Asn	Gly 510
Ser	Asp	Glu	Glu	Gln 515	Cys	Gln	Glu	Gly	Val 520	Pro	Cys	Gly	Thr	Phe 525
Thr	Phe	Gln	Cys	Glu 530	Asp	Arg	Ser	Cys	Val 535	Lys	Lys	Pro	Asn	Pro 540
Gln	Cys	Asp	Gly	Arg 545	Pro	Asp	Cys	Arg	Asp 550	Gly	Ser	Asp	Glu	Glu 555
His	Cys	Asp	Cys	Gly 560	Leu	Gln	Gly	Pro	Ser 565	Ser	Arg	Ile	Val	Gly 570
Gly	Ala	Val	Ser	Ser 575	Glu	Gly	Glu	Trp	Pro 580	Trp	Gln	Ala	Ser	Leu 585

Gln	Val	Arg	Gly	Arg	His	Ile	Cys	Gly	Gly	Ala	Leu	Ile	Ala	Asp	
				590					595					600	
Arg	Trp	Val	Ile	Thr	Ala	Ala	His	Cys	Phe	Gln	Glu	Asp	Ser	Met	
				605					610					615	
Ala	Ser	Thr	Val	Leu	Trp	Thr	Val	Phe	Leu	Gly	Lys	Val	Trp	Gln	
				620					625					630	
Asn	Ser	Arg	Trp	Pro	Gly	Glu	Val	Ser	Phe	Lys	Val	Ser	Arg	Leu	
				635					640					645	
Leu	Leu	His	Pro	Tyr	His	Glu	Glu	Asp	Ser	His	Asp	Tyr	Asp	Val	
				650					655					660	
Ala	Leu	Leu	Gln	Leu	Asp	His	Pro	Val	Val	Arg	Ser	Ala	Ala	Val	
				665					670					675	
Arg	Pro	Val	Cys	Leu	Pro	Ala	Arg	Ser	His	Phe	Phe	Glu	Pro	Gly	
				680					685					690	
Leu	His	Cys	Trp	Ile	Thr	Gly	Trp	Gly	Ala	Leu	Arg	Glu	Gly	Gly	
				695					700					705	
Pro	Ile	Ser	Asn	Ala	Leu	Gln	Lys	Val	Asp	Val	Gln	Leu	Ile	Pro	
				710					715					720	
Gln	Asp	Leu	Cys	Ser	Glu	Ala	Tyr	Arg	Tyr	Gln	Val	Thr	Pro	Arg	
				725					730					735	
Met	Leu	Cys	Ala	Gly	Tyr	Arg	Lys	Gly	Lys	Lys	Asp	Ala	Cys	Gln	
				740					745					750	
Gly	Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Lys	Ala	Leu	Ser	Gly	Arg	
				755					760					765	
Trp	Phe	Leu	Ala	Gly	Leu	Val	Ser	Trp	Gly	Leu	Gly	Cys	Gly	Arg	
				770					775					780	
Pro	Asn	Tyr	Phe	Gly	Val	Tyr	Thr	Arg	Ile	Thr	Gly	Val	Ile	Ser	
				785					790					795	
Trp	Ile	Gln	Gln	Val	Val	Thr									
				800											

<210> 170
 <211> 1327
 <212> DNA
 <213> Homo sapiens

<400> 170
 gcacccaggg ccagtggacg atccagaaca ggaggctgtg tggcttgccg 50
 atcctgcagc cctacgccga gaggatcccc gtggtggcca cggccgggat 100
 caccatcaac ttcacctccc agatctccct caccgggccc ggtgtgcggg 150
 tgcactatgg cttgtacaac cagtcggacc cctgccctgg agagttcctc 200

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 172
 taatccagca gtgcaggccg gg 22

 <210> 173
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 173
 atggcctcca cgggtgctgtg gaccgtgttc ctgggcaagg tgtggcagaa 50

 <210> 174
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 174
 tgcctatgca ctgaggaggc agaag 25

 <210> 175
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 175
 aggcagggac acagagtcca ttcac 25

 <210> 176
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 176
 agtatgattt gccgtgcacc cagggccagt ggacgatcca gaacaggagg 50

 <210> 177
 <211> 1510
 <212> DNA
 <213> Homo sapiens

<400> 177

ggacgagggc agatctcggt ctggggcaag ccgttgacac tcgctccctg 50
ccaccgcccg ggctccgtgc cgccaagttt tcattttcca ctttctctgc 100
ctccagtccc ccagcccctg gccgagagaa gggctcttacc ggccgggatt 150
gctggaaaca ccaagagggt gtttttgttt tttaaaactt ctgtttcttg 200
ggaggggggt tggcggggca ggatgagcaa ctccgttcct ctgctctgtt 250
tctggagcct ctgctattgc tttgctgcgg ggagcccgt accttttggg 300
ccagagggac ggctggaaga taagctccac aaacccaaag ctacacagac 350
tgaggtaaaa ccatctgtga ggtttaacct ccgcacctcc aaggaccag 400
agcatgaagg atgctacctc tccgtcggcc acagccagcc cttagaagac 450
tgcagtttca acatgacagc taaaaccttt ttcattcttc acggatggac 500
gatgagcggg atctttgaaa actggctgca caaactcgtg tcagccctgc 550
acacaagaga gaaagacgcc aatgtagttg tgggtgactg gctccccctg 600
gccaccagc tttacacgga tgcggtcaat aataccaggg tgggtgggaca 650
cagcattgcc aggatgctcg actggctgca ggagaaggac gatttttctc 700
tcgggaatgt ccaattgatc ggctacagcc tcggagcgca cgtggccggg 750
tatgcaggca acttcgtgaa aggaacgggt ggccgaatca caggtttga 800
tcctgccggg cccatgtttg aaggggccga catccacaag aggtctcttc 850
cggacgatgc agattttgtg gatgtcctcc acacctacac gcgttccttc 900
ggcttgagca ttggtattca gatgcctgtg ggccacattg acatctaccc 950
caatgggggt gacttccagc caggctgtgg actcaacgat gtcttgggat 1000
caattgcata tggaacaatc acagagggtg taaaatgtga gcatgagcga 1050
gccgtccacc tctttgttga ctctctgggt aatcaggaca agccgagttt 1100
tgccttccag tgactgaact ccaatcgctt caaaaagggg atctgtctga 1150
gctgccgcaa gaaccgttgt aatagcattg gctacaatgc caagaaaatg 1200
aggaacaaga ggaacagcaa aatgtaccta aaaaccggg caggcatgcc 1250
tttcagaggt aaccttcagt ccctggagt tccctgagga aggcccttaa 1300
tacctccttc ttaataccat gctgcagagc agggcacatc ctagcccagg 1350
agaagtggcc agcacaatcc aatcaaatcg ttgcaaatca gattacactg 1400
tgcattgtct aggaaaggga atctttacaa aataaacagt gtggaccct 1450

<211> 3240
<212> DNA
<213> Homo sapiens

<400> 182

cggacgcgtg ggcgagcgcg tgggcctggg caagggcggg ggcgccgggc 50
cgagccacct cttcccctcc cccgcttccc tgtcgcgctc cgctggctgg 100
acgcgctgga ggagtggagc agcaccgggc cggccctggg ggctgacagt 150
cggcaaagt tggcccgaag aggaagtggc ctcaaaccct ggcaggtggc 200
gaccaggcca gaccaggggc gctcgctgcc tgcgggcggg ctgtaggcga 250
gggcgcgccc cagtgccgag acccggggct tcaggagccg gccccgggag 300
agaagagtgc ggcggcggac ggagaaaaca actccaaagt tggcgaaagg 350
caccgcccct actcccgggc tgccgcgcgc tccccgccc cagccctggc 400
atccagagta cgggtcgagc ccggggccatg gagccccct ggggaggcgg 450
caccagggag cctgggcgcc cggggctccg ccgcgacccc atcgggtaga 500
ccacagaagc tccgggaccc ttccggcacc tctggacagc ccaggatgct 550
gttggccacc ctctctctcc tctctcttgg aggcgctctg gcccatccag 600
accggattat ttttccaaat catgcttgtg aggaccccc agcagtgtctc 650
ttagaagtgc agggcacctt acagaggccc ctggtccggg acagccgcac 700
ctcccctgcc aactgcacct ggctcatctt gggcagcaag gaacagactg 750
tcaccatcag gttccagaag ctacacctgg cctgtggctc agagcgctta 800
accctacgct cccctctcca gccactgatc tccctgtgtg aggcacctcc 850
cagccctctg cagctgcccg ggggcaacgt caccatcact tacagctatg 900
ctggggccag agcaccocat gggcagggct tctgtctctc ctacagccaa 950
gattggctga tgtgcctgca ggaagagttt cagtgcctga accaccgctg 1000
tgtatctgct gtccagcgct gtgatgggtg tgatgcctgt ggcgatggct 1050
ctgatgaagc aggttgagc tcagaccctt tccctggcct gacccaaga 1100
ccgctccct cctgccttg caatgtcacc ttggaggact tctatgggg 1150
cttctctct cctggatata cacacctagc ctcagtctcc caccaccagt 1200
cctgocattg gctgctggac ccccatgatg gccggcggct ggccgtgcgc 1250
ttcacagccc tggacttggg ctttggagat gcagtgcagc tgtatgacgg 1300
ccctgggccc cctgagagct cccgactact gcgtagtctc acccacttca 1350

gcaatggcaa ggctgtcact gtggagacac tgtctggcca ggctgttgtg 1400
tcctaccaca cagttgcttg gagcaatggg cgtggcttca atgccaccta 1450
ccatgtgcgg ggctattgct tgccctggga cagaccctgt ggcttaggct 1500
ctggcctggg agctggcgaa ggcctagggt agcgctgcta cagtgaggca 1550
cagcgctgtg acggctcatg ggactgtgct gacggcacag atgaggagga 1600
ctgcccaggc tgcccacctg gacaacttccc ctgtggggct gctggcacct 1650
ctggtgccac agcctgctac ctgcctgctg accgctgcaa ctaccagact 1700
ttctgtgctg atggagcaga tgagagacgc tgtcggcatt gccagcctgg 1750
caatttccga tgccgggacg agaagtgcgt gtatgagacg tgggtgtgcg 1800
atgggcagcc agactgtgcg gacggcagtg atgagtggga ctgctcctat 1850
gttctgcccc gcaaggtcat tacagctgca gtcattggca gcctagtgtg 1900
cggcctgctc ctggtcatcg ccctgggctg cacctgcaag ctctatgcca 1950
ttcgaccca ggagtacagc atctttgcc ccctctcccg gatggaggct 2000
gagattgtgc agcagcaggc acccccttcc tacgggcagc tcattgcca 2050
gggtgccatc ccacctgtag aagactttcc tacagagaat cctaataata 2100
actcagtgtg gggcaacctg cgttctctgc tacagatctt acgccaggat 2150
atgactccag gaggtggccc aggtgcccgc cgtcgtcagc ggggccgctt 2200
gatgcgacgc ctggtacgcc gtctccgccg ctggggcttg ctccctcgaa 2250
ccaacacccc ggctcgggccc tctgaggcca gatcccaggc cacaccttct 2300
gctgctcccc ttgaggccct agatggtggc acaggtccag cccgtgaggg 2350
cggggcagtg ggtgggcaag atggggagca ggcaccccca ctgcccata 2400
aggctccctt cccatctgct agcacgtctc cagccccac tactgtccct 2450
gaagccccag ggccaactgcc ctactgccc ctagagccat cactattgtc 2500
tggagtgggt caggccctgc gaggccgctt gttgccagc ctggggcccc 2550
caggaccaac ccggagcccc cctggacccc acacagcagt cctggccctg 2600
gaagatgagg acgatgtgct actggtgcca ctggctgagc cgggggtgtg 2650
ggtagctgag gcagaggatg agccactgct tacctgaggg gacctggggg 2700
ctctactgag gcctctcccc tgggggctct actcatagtg gcacaacctt 2750
ttagagggtg gtcagcctcc cctccaccac ttccttccct gtccctggat 2800

				170					175					180
Gly	Leu	Thr	Pro	Arg 185	Pro	Val	Pro	Ser	Leu	Pro	Cys	Asn	Val	Thr 195
Leu	Glu	Asp	Phe	Tyr 200	Gly	Val	Phe	Ser	Ser	Pro	Gly	Tyr	Thr	His 210
Leu	Ala	Ser	Val	Ser 215	His	Pro	Gln	Ser	Cys	His	Trp	Leu	Leu	Asp 225
Pro	His	Asp	Gly	Arg 230	Arg	Leu	Ala	Val	Arg	Phe	Thr	Ala	Leu	Asp 240
Leu	Gly	Phe	Gly	Asp 245	Ala	Val	His	Val	Tyr	Asp	Gly	Pro	Gly	Pro 255
Pro	Glu	Ser	Ser	Arg 260	Leu	Leu	Arg	Ser	Leu	Thr	His	Phe	Ser	Asn 270
Gly	Lys	Ala	Val	Thr 275	Val	Glu	Thr	Leu	Ser	Gly	Gln	Ala	Val	Val 285
Ser	Tyr	His	Thr	Val 290	Ala	Trp	Ser	Asn	Gly	Arg	Gly	Phe	Asn	Ala 300
Thr	Tyr	His	Val	Arg 305	Gly	Tyr	Cys	Leu	Pro	Trp	Asp	Arg	Pro	Cys 315
Gly	Leu	Gly	Ser	Gly 320	Leu	Gly	Ala	Gly	Glu	Gly	Leu	Gly	Glu	Arg 330
Cys	Tyr	Ser	Glu	Ala 335	Gln	Arg	Cys	Asp	Gly	Ser	Trp	Asp	Cys	Ala 345
Asp	Gly	Thr	Asp	Glu 350	Glu	Asp	Cys	Pro	Gly	Cys	Pro	Pro	Gly	His 360
Phe	Pro	Cys	Gly	Ala 365	Ala	Gly	Thr	Ser	Gly	Ala	Thr	Ala	Cys	Tyr 375
Leu	Pro	Ala	Asp	Arg 380	Cys	Asn	Tyr	Gln	Thr	Phe	Cys	Ala	Asp	Gly 390
Ala	Asp	Glu	Arg	Arg 395	Cys	Arg	His	Cys	Gln	Pro	Gly	Asn	Phe	Arg 405
Cys	Arg	Asp	Glu	Lys 410	Cys	Val	Tyr	Glu	Thr	Trp	Val	Cys	Asp	Gly 420
Gln	Pro	Asp	Cys	Ala 425	Asp	Gly	Ser	Asp	Glu	Trp	Asp	Cys	Ser	Tyr 435
Val	Leu	Pro	Arg	Lys 440	Val	Ile	Thr	Ala	Ala	Val	Ile	Gly	Ser	Leu 450
Val	Cys	Gly	Leu	Leu 455	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys 465

Leu Tyr Ala Ile Arg Thr Gln Glu Tyr Ser Ile Phe Ala Pro Leu
470 475 480

Ser Arg Met Glu Ala Glu Ile Val Gln Gln Gln Ala Pro Pro Ser
485 490 495

Tyr Gly Gln Leu Ile Ala Gln Gly Ala Ile Pro Pro Val Glu Asp
500 505 510

Phe Pro Thr Glu Asn Pro Asn Asp Asn Ser Val Leu Gly Asn Leu
515 520 525

Arg Ser Leu Leu Gln Ile Leu Arg Gln Asp Met Thr Pro Gly Gly
530 535 540

Gly Pro Gly Ala Arg Arg Arg Gln Arg Gly Arg Leu Met Arg Arg
545 550 555

Leu Val Arg Arg Leu Arg Arg Trp Gly Leu Leu Pro Arg Thr Asn
560 565 570

Thr Pro Ala Arg Ala Ser Glu Ala Arg Ser Gln Val Thr Pro Ser
575 580 585

Ala Ala Pro Leu Glu Ala Leu Asp Gly Gly Thr Gly Pro Ala Arg
590 595 600

Glu Gly Gly Ala Val Gly Gly Gln Asp Gly Glu Gln Ala Pro Pro
605 610 615

Leu Pro Ile Lys Ala Pro Leu Pro Ser Ala Ser Thr Ser Pro Ala
620 625 630

Pro Thr Thr Val Pro Glu Ala Pro Gly Pro Leu Pro Ser Leu Pro
635 640 645

Leu Glu Pro Ser Leu Leu Ser Gly Val Val Gln Ala Leu Arg Gly
650 655 660

Arg Leu Leu Pro Ser Leu Gly Pro Pro Gly Pro Thr Arg Ser Pro
665 670 675

Pro Gly Pro His Thr Ala Val Leu Ala Leu Glu Asp Glu Asp Asp
680 685 690

Val Leu Leu Val Pro Leu Ala Glu Pro Gly Val Trp Val Ala Glu
695 700 705

Ala Glu Asp Glu Pro Leu Leu Thr
710

<210> 184

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

aataaaacat cgcccccttct gcttcagtgt gaaaggccac gtgaagatgc 200
 tgcggctggc actaactgtg acatctatga ccttttttat catcgacaaa 250
 gcccctgaac catatattgt tatcactgga tttgaagtoa ccgttatctt 300
 atttttcata cttttatag tactcagact tgatcgatta atgaagtggg 350
 tattttggcc tttgcttgat attatcaact cactggtaac aacagtattc 400
 atgctcatcg tatctgtgtt ggcactgata ccagaaacca caacattgac 450
 agttgggtgga ggggtgtttg cacttgtgac agcagtatgc tgtcttgccg 500
 acggggccct tatttaccgg aagcttctgt tcaatcccag cggtccttac 550
 cagaaaaagc ctgtgcatga aaaaaaagaa gttttgtaat tttatattac 600
 tttttagttt gataactaagt attaaacata tttctgtatt cttccaaaaa 650
 aaaaaaaaaa aaa 663

<210> 190

<211> 152

<212> PRT

<213> Homo sapiens

<400> 190

Met	Asp	Asn	Val	Gln	Pro	Lys	Ile	Lys	His	Arg	Pro	Phe	Cys	Phe
1				5					10					15
Ser	Val	Lys	Gly	His	Val	Lys	Met	Leu	Arg	Leu	Ala	Leu	Thr	Val
				20					25					30
Thr	Ser	Met	Thr	Phe	Phe	Ile	Ile	Ala	Gln	Ala	Pro	Glu	Pro	Tyr
				35					40					45
Ile	Val	Ile	Thr	Gly	Phe	Glu	Val	Thr	Val	Ile	Leu	Phe	Phe	Ile
				50					55					60
Leu	Leu	Tyr	Val	Leu	Arg	Leu	Asp	Arg	Leu	Met	Lys	Trp	Leu	Phe
				65					70					75
Trp	Pro	Leu	Leu	Asp	Ile	Ile	Asn	Ser	Leu	Val	Thr	Thr	Val	Phe
				80					85					90
Met	Leu	Ile	Val	Ser	Val	Leu	Ala	Leu	Ile	Pro	Glu	Thr	Thr	Thr
				95					100					105
Leu	Thr	Val	Gly	Gly	Gly	Val	Phe	Ala	Leu	Val	Thr	Ala	Val	Cys
				110					115					120
Cys	Leu	Ala	Asp	Gly	Ala	Leu	Ile	Tyr	Arg	Lys	Leu	Leu	Phe	Asn
				125					130					135
Pro	Ser	Gly	Pro	Tyr	Gln	Lys	Lys	Pro	Val	His	Glu	Lys	Lys	Glu
				140					145					150

Val Leu

<210> 191
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 78, 212, 234, 487
<223> unknown base

<400> 191
gggcgagaag taggggaggg cgtgttcgc gcggtggcg gttgctatcg 50
ttttgcagaa cctactcagg cagccagntg agaagagttg agggaaagtg 100
ctgctgctgg gtctgcagac gcgatggata acgtgcagcc gaaaataaaa 150
catcgcccct tctgcttcag tgtgaaaggc cacgtgaaga tgctgcggct 200
ggcactaact gngacatcta tgaccttttt tatnatcgca caagcccctg 250
aaccatatat tgttatcact ggatttgaag tcaccgttat cttatttttc 300
atacttttat atgtactcag acttgatcga ttaatgaagt ggttattttg 350
gcctttgott gatattatca actcactggt aacaacagta ttcatgctca 400
tcgtatctgt gttggcactg ataccagaaa ccacaacatt gacagttggt 450
ggaggggtgt ttgcacttgt gacagcagta tgctgtnttg ccgac 495

<210> 192
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 192
cgttttgcag aacctactca ggcag 25

<210> 193
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 193
cctccaccaa ctgtcaatgt tgtgg 25

<210> 194
<211> 40

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 194
aaagtgctgc tgctgggtct gcagacgcga tggataacgt 40

<210> 195
<211> 1879
<212> DNA
<213> Homo sapien

<400> 195
cagccccgcg cgccggccga gtcgtgagc cgcggctgcc ggacgggacg 50
ggaccggcta ggctggggcg gccccccggg ccccgccgtg ggcattgggcg 100
cactggccccg ggcgtgctg ctgcctctgc tggcccagtg gtcctgcgc 150
gccgccccgg agctggcccc cgcgcccttc acgctgcccc tccgggtggc 200
cgcggccacg aaccgcgtag ttgcgcccac cccgggaccc gggaccctg 250
ccgagcgcca cgccgacggc ttggcgctcg ccctggagcc tgccctggcg 300
tccccgcgg gcgccgcaa cttcttggcc atggtagaca acctgcaggg 350
ggactctggc cgcggctact acctggagat gctgatcggg accccccgc 400
agaagctaca gattctcgtt gacactggaa gcagtaactt tgccgtggca 450
ggaacccgc actcctacat agacacgtac tttgacacag agaggtctag 500
cacataccgc tccaagggct ttgacgtcac agtgaagtac acacaaggaa 550
gctggacggg cttcgttggg gaagacctcg tcaccatccc caaaggcttc 600
aatacttctt ttcttgtcaa cattgccact atttttgaat cagagaattt 650
ctttttgcct gggattaaat ggaatggaat acttggccta gcttatgcca 700
cacttgccaa gccatcaagt tctctggaga cttcttcga ctccctggtg 750
acacaagcaa acatcccaa cgttttctcc atgcagatgt gtggagccgg 800
cttgcccgtt gctggatctg ggaccaacgg aggtagtctt gtcttgggtg 850
gaattgaacc aagtttgtat aaaggagaca tctggtatac ccctattaag 900
gaagagtggc actaccagat agaaattctg aaattggaaa ttggaggcca 950
aagccttaat ctggactgca gagagtataa cgcagacaag gccatcgtgg 1000
acagtggcac cacgctgctg cgctgcccc agaaggtgtt tgatgcggtg 1050
gtggaagctg tggcccgcgc atctctgatt ccagaattct ctgatggttt 1100

Gln Ile Leu Val	Asp Thr Gly Ser Ser	Asn Phe Ala Val Ala Gly	110	115	120
Thr Pro His Ser	Tyr Ile Asp Thr Tyr	Phe Asp Thr Glu Arg Ser	125	130	135
Ser Thr Tyr Arg	Ser Lys Gly Phe Asp	Val Thr Val Lys Tyr Thr	140	145	150
Gln Gly Ser Trp	Thr Gly Phe Val Gly	Glu Asp Leu Val Thr Ile	155	160	165
Pro Lys Gly Phe	Asn Thr Ser Phe Leu	Val Asn Ile Ala Thr Ile	170	175	180
Phe Glu Ser Glu	Asn Phe Phe Leu Pro	Gly Ile Lys Trp Asn Gly	185	190	195
Ile Leu Gly Leu	Ala Tyr Ala Thr Leu	Ala Lys Pro Ser Ser Ser	200	205	210
Leu Glu Thr Phe	Phe Asp Ser Leu Val	Thr Gln Ala Asn Ile Pro	215	220	225
Asn Val Phe Ser	Met Gln Met Cys Gly	Ala Gly Leu Pro Val Ala	230	235	240
Gly Ser Gly Thr	Asn Gly Gly Ser Leu	Val Leu Gly Gly Ile Glu	245	250	255
Pro Ser Leu Tyr	Lys Gly Asp Ile Trp	Tyr Thr Pro Ile Lys Glu	260	265	270
Glu Trp Tyr Tyr	Gln Ile Glu Ile Leu	Lys Leu Glu Ile Gly Gly	275	280	285
Gln Ser Leu Asn	Leu Asp Cys Arg Glu	Tyr Asn Ala Asp Lys Ala	290	295	300
Ile Val Asp Ser	Gly Thr Thr Leu Leu	Arg Leu Pro Gln Lys Val	305	310	315
Phe Asp Ala Val	Val Glu Ala Val Ala	Arg Ala Ser Leu Ile Pro	320	325	330
Glu Phe Ser Asp	Gly Phe Trp Thr Gly	Ser Gln Leu Ala Cys Trp	335	340	345
Thr Asn Ser Glu	Thr Pro Trp Ser Tyr	Phe Pro Lys Ile Ser Ile	350	355	360
Tyr Leu Arg Asp	Glu Asn Ser Ser Arg	Ser Phe Arg Ile Thr Ile	365	370	375
Leu Pro Gln Leu	Tyr Ile Gln Pro Met	Met Gly Ala Gly Leu Asn	380	385	390
Tyr Glu Cys Tyr	Arg Phe Gly Ile Ser	Pro Ser Thr Asn Ala Leu			

	395		400		405
Val Ile Gly Ala	Thr Val Met Glu Gly	Phe Tyr Val Ile Phe	Asp		
	410		415		420
Arg Ala Gln Lys	Arg Val Gly Phe Ala	Ala Ser Pro Cys Ala	Glu		
	425		430		435
Ile Ala Gly Ala	Ala Val Ser Glu Ile	Ser Gly Pro Phe Ser	Thr		
	440		445		450
Glu Asp Val Ala	Ser Asn Cys Val Pro	Ala Gln Ser Leu Ser	Glu		
	455		460		465
Pro Ile Leu Trp	Ile Val Ser Tyr Ala	Leu Met Ser Val Cys	Gly		
	470		475		480
Ala Ile Leu Leu	Val Leu Ile Val Leu	Leu Leu Leu Pro Phe	Arg		
	485		490		495
Cys Gln Arg Arg	Pro Arg Asp Pro Glu	Val Val Asn Asp Glu	Ser		
	500		505		510
Ser Leu Val Arg	His Arg Trp Lys				
	515				

<210> 197
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 197
 cgcagaagct acagattctc g 21

<210> 198
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 198
 ggaaattgga ggccaaagc 19

<210> 199
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 199
 ggatgtagcc agcaactgtg 20

<210> 200
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 200
gccttggtc gttctcttc 19

<210> 201
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 201
ggcctgtgc ctggatgg 18

<210> 202
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 202
gacaagacta cctccgttg tc 22

<210> 203
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 203
tgatgcacag ttcagcacct gttg 24

<210> 204
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 204
cgctccaagg gctttgacgt cacagtgaag tacacacaag gaagctg 47

<210> 205
<211> 1939
<212> DNA

<213> Homo sapiens

<400> 205

cgccctccgcc ttccggaggct gacgcgcccc ggccgcttc caggcctgtg 50
cagggcggat cggcagccgc ctggcggcga tccagggcgg tgcggggcct 100
gggcgggagc cgggaggcgc ggccggcatg gaggcgctgc tgctgggcgc 150
ggggttgctg ctgggcgctt acgtgcttgt ctactacaac ctggtgaagg 200
ccccgcctg cggcggcatg ggcaacctgc ggggccgcac ggccgtggtc 250
acgggcgcca acagcggcat cggaaagatg acggcgctgg agctggcgcg 300
ccggggagcg cgcgtggtgc tggcctgccg cagccaggag cgcggggagg 350
cggctgcctt cgacctccgc caggagagtg ggaacaatga ggtcatcttc 400
atggccttgg acttgccag tctggcctcg gtgcgggcct ttgccactgc 450
ctttctgagc tctgagccac ggttgacat cctcatccac aatgccggtg 500
tcagttcctg tggccggacc cgtgaggcgt ttaacctgct gcttcgggtg 550
aaccatatcg gtccctttct gctgacacat ctgctgctgc cttgcctgaa 600
ggcatgtgcc cctagccgcg tgggtggtgt agcctcagct gccactgtc 650
ggggacgtct tgacttcaaa cgccctggacc gcccagtggg gggctggcgg 700
caggagctgc gggcatatgc tgacactaag ctggctaata tactgtttgc 750
ccgggagctc gccaaccagc ttgaggccac tggcgctacc tgctatgcag 800
cccaccagc gcctgtgaac tcggagctgt tcctgcgcca tgttcctgga 850
tggctgcgcc cacttttgcg ccatttggct tggctggtgc tccgggcacc 900
aagagggggg gccagacac ccctgtattg tgctctaaa gagggcatcg 950
agccctcag tgggagatat ttgccaact gccatgtgga agaggtgcct 1000
ccagctgcc gagacgacc ggcagcccat cggctatggg aggccagcaa 1050
gaggctggca gggcttgggc ctggggagga tgctgaacct gatgaagacc 1100
cccagtctga ggactcagag gcccacatt ctctaagcac cccaccct 1150
gaggagccca cagtttctca acctacccc agccctcaga gtcaccaga 1200
tttgtctaag atgacgcacc gaattcaggc taaagttgag cctgagatcc 1250
agctctccta accctcaggc caggatgctt gccatggcac ttcattgtcc 1300
ttgaaaacct cggatgtgtg tgaggccatg ccctggacac tgacgggttt 1350
gtgatcttga cctccgtggg tactttctgg ggccccaagc tgtgccctgg 1400

acatctcttt tcttggttga aggaataatg ggtgattatt tcttcctgag 1450
 agtgacagta accccagatg gagagatagg ggtatgctag acactgtgct 1500
 tctcggaat ttggatgtag tattttcagg cccaccctt attgattctg 1550
 atcagctctg gagcagaggc agggagtttg caatgtgatg cactgccaac 1600
 attgagaatt agtgaactga tccctttgca accgtctagc taggtagtta 1650
 aattaccccc atgttaatga agcggaatta ggctcccgag ctaagggact 1700
 cgcctagggt ctcacagtga gtaggaggag ggctgggat ctgaacccaa 1750
 gggctctgagg ccagggccga ctgccgtaag atgggtgctg agaagtgagt 1800
 cagggcaggg cagctggtat cgaggtgcc catgggagta aggggacgcc 1850
 ttccgggchg atgcagggtt ggggtcatct gtatctgaag cccctcgaa 1900
 taaagcgcgt tgaccgcaa aaaaaaaaaa aaaaaaaaaa 1939

<210> 206

<211> 377

<212> PRT

<213> Homo sapiens

<400> 206

Met	Glu	Ala	Leu	Leu	Leu	Gly	Ala	Gly	Leu	Leu	Leu	Gly	Ala	Tyr
1				5					10					15
Val	Leu	Val	Tyr	Tyr	Asn	Leu	Val	Lys	Ala	Pro	Pro	Cys	Gly	Gly
				20					25					30
Met	Gly	Asn	Leu	Arg	Gly	Arg	Thr	Ala	Val	Val	Thr	Gly	Ala	Asn
				35					40					45
Ser	Gly	Ile	Gly	Lys	Met	Thr	Ala	Leu	Glu	Leu	Ala	Arg	Arg	Gly
				50					55					60
Ala	Arg	Val	Val	Leu	Ala	Cys	Arg	Ser	Gln	Glu	Arg	Gly	Glu	Ala
				65					70					75
Ala	Ala	Phe	Asp	Leu	Arg	Gln	Glu	Ser	Gly	Asn	Asn	Glu	Val	Ile
				80					85					90
Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala	Phe
				95					100					105
Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile
				110					115					120
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe
				125					130					135
Asn	Leu	Leu	Leu	Arg	Val	Asn	His	Ile	Gly	Pro	Phe	Leu	Leu	Thr
				140					145					150

His	Leu	Leu	Leu	Pro	Cys	Leu	Lys	Ala	Cys	Ala	Pro	Ser	Arg	Val	155	160	165
Val	Val	Val	Ala	Ser	Ala	Ala	His	Cys	Arg	Gly	Arg	Leu	Asp	Phe	170	175	180
Lys	Arg	Leu	Asp	Arg	Pro	Val	Val	Gly	Trp	Arg	Gln	Glu	Leu	Arg	185	190	195
Ala	Tyr	Ala	Asp	Thr	Lys	Leu	Ala	Asn	Val	Leu	Phe	Ala	Arg	Glu	200	205	210
Leu	Ala	Asn	Gln	Leu	Glu	Ala	Thr	Gly	Val	Thr	Cys	Tyr	Ala	Ala	215	220	225
His	Pro	Gly	Pro	Val	Asn	Ser	Glu	Leu	Phe	Leu	Arg	His	Val	Pro	230	235	240
Gly	Trp	Leu	Arg	Pro	Leu	Leu	Arg	Pro	Leu	Ala	Trp	Leu	Val	Leu	245	250	255
Arg	Ala	Pro	Arg	Gly	Gly	Ala	Gln	Thr	Pro	Leu	Tyr	Cys	Ala	Leu	260	265	270
Gln	Glu	Gly	Ile	Glu	Pro	Leu	Ser	Gly	Arg	Tyr	Phe	Ala	Asn	Cys	275	280	285
His	Val	Glu	Glu	Val	Pro	Pro	Ala	Ala	Arg	Asp	Asp	Arg	Ala	Ala	290	295	300
His	Arg	Leu	Trp	Glu	Ala	Ser	Lys	Arg	Leu	Ala	Gly	Leu	Gly	Pro	305	310	315
Gly	Glu	Asp	Ala	Glu	Pro	Asp	Glu	Asp	Pro	Gln	Ser	Glu	Asp	Ser	320	325	330
Glu	Ala	Pro	Ser	Ser	Leu	Ser	Thr	Pro	His	Pro	Glu	Glu	Pro	Thr	335	340	345
Val	Ser	Gln	Pro	Tyr	Pro	Ser	Pro	Gln	Ser	Ser	Pro	Asp	Leu	Ser	350	355	360
Lys	Met	Thr	His	Arg	Ile	Gln	Ala	Lys	Val	Glu	Pro	Glu	Ile	Gln	365	370	375

Leu Ser

<210> 207
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 207
 cttcatggcc ttggacttgg ccag 24

<210> 208
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 208
acgccagtgg cctcaagctg gttg 24

<210> 209
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 209
ctttctgagc tctgagccac ggttgacat cctcatccac aatgc 45

<210> 210
<211> 3716
<212> DNA
<213> Homo sapiens

<400> 210
ggaggagaca gcctcctggg gggcaggggt tccctgcctc tgctgctcct 50
gctcatcatg ggaggcatgg ctcaggactc cccgccccag atcctagtcc 100
acccccagga ccagctgttc cagggccctg gccctgccag gatgagctgc 150
caagcctcag gccagccacc tcccaccatc cgctgggttg tgaatgggca 200
gccctgagc atggtgcccc cagaccacaca ccacctcctg cctgatggga 250
cccttctgct gctacagccc cctgcccggg gacatgcca cgatggccag 300
gccctgtcca cagacctggg tgtctacaca tgtgaggcca gcaaccggct 350
tggcacggca gtcagcagag gcgctcggt gtctgtggct gtcctccggg 400
aggatttcca gatccagcct cgggacatgg tggctgtggt gggtagcag 450
tttactctgg aatgtgggcc gccctggggc caccagagc ccacagtctc 500
atggtggaaa gatgggaaac ccctggccct ccagcccga aggcacacag 550
tgtccggggg gtccctgctg atggcaagag cagagaagag tgacgaaggg 600
acctacatgt gtgtggccac caacagcgca ggacataggg agagccgcgc 650
agcccgggtt tccatccagg agccccagga ctacacggag cctgtggagc 700
ttctggctgt gcgaattcag ctggaaaatg tgacactgct gaaccgggat 750

caccacaggc tccctcctcc atcctgctgc cagcagcccc catccccatc 2250
cttagcccct gcagtcccc tagccccag gcctcttccc totctggccc 2300
cagcccagct tccagtgcgc tgtccagctc ctcaactgtca tccctggggg 2350
aggatcaaga cagcgtgctg acccctgagg aggtagccct gtgcttgga 2400
ctcagtgagg gtgaggagac tcccaggaac agcgtctctc ccatgccaag 2450
ggctccttca cccccacca cctatgggta catcagcgtc ccaacagcct 2500
cagagttcac ggacatgggc aggactggag gaggggtggg gccaagggg 2550
ggagtcttgc tgtgccacc tcggccctgc ctacccccca ccccagcga 2600
gggctcctta gccaatggtt ggggctcagc ctctgaggac aatgccgcca 2650
gcgccagagc cagccttgtc agctcctccg atggctcctt cctcgtgat 2700
gctcactttg cccgggccct ggagtggt gtggatagct ttggtttcgg 2750
tctagagccc agggaggcag actgctctt catagatgcc tcatcacctc 2800
cctccccacg ggatgagatc ttctgacct ccaacctctc cctgcccctg 2850
tgggagtgga ggccagactg gttggaagac atggaggtca gccacacca 2900
gcggctggga agggggatgc ctccctggcc cctgactct cagatctctt 2950
cccagagaag tcagctccac tgtcgtatgc ccaaggctgg tgcttctcct 3000
gtagattact cctgaaccgt gtccctgaga cttcccagac gggaatcaga 3050
accacttctc ctgtccacct acaagacctg ggctgtggtg tgtgggtctt 3100
ggcctgtgtt tctctgcagc tggggtccac cttcccaagc ctccagagag 3150
ttctccctcc acgattgtga aaacaaatga aaacaaaatt agagcaaagc 3200
tgacctggag ccctcagga gcaaaacatc atctccacct gactcctagc 3250
cactgctttc tcctctgtgc catccactcc caccaccagg ttgttttggc 3300
ctgaggagca gccctgcctg ctgctcttcc cccaccattt ggatcacagg 3350
aagtggagga gccagagggt cctttgtgga ggacagcagt ggctgctggg 3400
agagggctgt ggaggaagga gcttctcgga gccccctctc agccttacct 3450
gggccccctc tctagagaag agctcaactc tctcccaacc tcaccatgga 3500
aagaaaataa ttatgaatgc cactgaggca ctgaggccct acctcatgcc 3550
aaacaaaggg ttcaaggctg ggtctagcga ggatgctgaa ggaaggagg 3600
tatgagaccg taggtcaaaa gcaccatcct cgtactgttg tcaactatgag 3650

cttaagaaat ttgataccat aaaatggtaa aaaaaaaaaa aaaaaaaaaa 3700

aaaaaaaaaa aaaaaa 3716

<210> 211

<211> 985

<212> PRT

<213> Homo sapiens

<400> 211

Met Gly Gly Met Ala Gln Asp Ser Pro Pro Gln Ile Leu Val His
1 5 10 15

Pro Gln Asp Gln Leu Phe Gln Gly Pro Gly Pro Ala Arg Met Ser
20 25 30

Cys Gln Ala Ser Gly Gln Pro Pro Pro Thr Ile Arg Trp Leu Leu
35 40 45

Asn Gly Gln Pro Leu Ser Met Val Pro Pro Asp Pro His His Leu
50 55 60

Leu Pro Asp Gly Thr Leu Leu Leu Leu Gln Pro Pro Ala Arg Gly
65 70 75

His Ala His Asp Gly Gln Ala Leu Ser Thr Asp Leu Gly Val Tyr
80 85 90

Thr Cys Glu Ala Ser Asn Arg Leu Gly Thr Ala Val Ser Arg Gly
95 100 105

Ala Arg Leu Ser Val Ala Val Leu Arg Glu Asp Phe Gln Ile Gln
110 115 120

Pro Arg Asp Met Val Ala Val Val Gly Glu Gln Phe Thr Leu Glu
125 130 135

Cys Gly Pro Pro Trp Gly His Pro Glu Pro Thr Val Ser Trp Trp
140 145 150

Lys Asp Gly Lys Pro Leu Ala Leu Gln Pro Gly Arg His Thr Val
155 160 165

Ser Gly Gly Ser Leu Leu Met Ala Arg Ala Glu Lys Ser Asp Glu
170 175 180

Gly Thr Tyr Met Cys Val Ala Thr Asn Ser Ala Gly His Arg Glu
185 190 195

Ser Arg Ala Ala Arg Val Ser Ile Gln Glu Pro Gln Asp Tyr Thr
200 205 210

Glu Pro Val Glu Leu Leu Ala Val Arg Ile Gln Leu Glu Asn Val
215 220 225

Thr Leu Leu Asn Pro Asp Pro Ala Glu Gly Pro Lys Pro Arg Pro
230 235 240

090705-10101

Ala Val Trp Leu Ser Trp Lys Val Ser Gly Pro Ala Ala Pro Ala	245	250	255
Gln Ser Tyr Thr Ala Leu Phe Arg Thr Gln Thr Ala Pro Gly Gly	260	265	270
Gln Gly Ala Pro Trp Ala Glu Glu Leu Leu Ala Gly Trp Gln Ser	275	280	285
Ala Glu Leu Gly Gly Leu His Trp Gly Gln Asp Tyr Glu Phe Lys	290	295	300
Val Arg Pro Ser Ser Gly Arg Ala Arg Gly Pro Asp Ser Asn Val	305	310	315
Leu Leu Leu Arg Leu Pro Glu Lys Val Pro Ser Ala Pro Pro Gln	320	325	330
Glu Val Thr Leu Lys Pro Gly Asn Gly Thr Val Phe Val Ser Trp	335	340	345
Val Pro Pro Pro Ala Glu Asn His Asn Gly Ile Ile Arg Gly Tyr	350	355	360
Gln Val Trp Ser Leu Gly Asn Thr Ser Leu Pro Pro Ala Asn Trp	365	370	375
Thr Val Val Gly Glu Gln Thr Gln Leu Glu Ile Ala Thr His Met	380	385	390
Pro Gly Ser Tyr Cys Val Gln Val Ala Ala Val Thr Gly Ala Gly	395	400	405
Ala Gly Glu Pro Ser Arg Pro Val Cys Leu Leu Leu Glu Gln Ala	410	415	420
Met Glu Arg Ala Thr Gln Glu Pro Ser Glu His Gly Pro Trp Thr	425	430	435
Leu Glu Gln Leu Arg Ala Thr Leu Lys Arg Pro Glu Val Ile Ala	440	445	450
Thr Cys Gly Val Ala Leu Trp Leu Leu Leu Leu Gly Thr Ala Val	455	460	465
Cys Ile His Arg Arg Arg Arg Ala Arg Val His Leu Gly Pro Gly	470	475	480
Leu Tyr Arg Tyr Thr Ser Glu Asp Ala Ile Leu Lys His Arg Met	485	490	495
Asp His Ser Asp Ser Gln Trp Leu Ala Asp Thr Trp Arg Ser Thr	500	505	510
Ser Gly Ser Arg Asp Leu Ser Ser Ser Ser Ser Leu Ser Ser Arg	515	520	525
Leu Gly Ala Asp Ala Arg Asp Pro Leu Asp Cys Arg Arg Ser Leu			

530										535					540				
Leu	Ser	Trp	Asp	Ser	Arg	Ser	Pro	Gly	Val	Pro	Leu	Leu	Pro	Asp					
				545					550					555					
Thr	Ser	Thr	Phe	Tyr	Gly	Ser	Leu	Ile	Ala	Glu	Leu	Pro	Ser	Ser					
				560					565					570					
Thr	Pro	Ala	Arg	Pro	Ser	Pro	Gln	Val	Pro	Ala	Val	Arg	Arg	Leu					
				575					580					585					
Pro	Pro	Gln	Leu	Ala	Gln	Leu	Ser	Ser	Pro	Cys	Ser	Ser	Ser	Asp					
				590					595					600					
Ser	Leu	Cys	Ser	Arg	Arg	Gly	Leu	Ser	Ser	Pro	Arg	Leu	Ser	Leu					
				605					610					615					
Ala	Pro	Ala	Glu	Ala	Trp	Lys	Ala	Lys	Lys	Lys	Gln	Glu	Leu	Gln					
				620					625					630					
His	Ala	Asn	Ser	Ser	Pro	Leu	Leu	Arg	Gly	Ser	His	Ser	Leu	Glu					
				635					640					645					
Leu	Arg	Ala	Cys	Glu	Leu	Gly	Asn	Arg	Gly	Ser	Lys	Asn	Leu	Ser					
				650					655					660					
Gln	Ser	Pro	Gly	Ala	Val	Pro	Gln	Ala	Leu	Val	Ala	Trp	Arg	Ala					
				665					670					675					
Leu	Gly	Pro	Lys	Leu	Leu	Ser	Ser	Ser	Asn	Glu	Leu	Val	Thr	Arg					
				680					685					690					
His	Leu	Pro	Pro	Ala	Pro	Leu	Phe	Pro	His	Glu	Thr	Pro	Pro	Thr					
				695					700					705					
Gln	Ser	Gln	Gln	Thr	Gln	Pro	Pro	Val	Ala	Pro	Gln	Ala	Pro	Ser					
				710					715					720					
Ser	Ile	Leu	Leu	Pro	Ala	Ala	Pro	Ile	Pro	Ile	Leu	Ser	Pro	Cys					
				725					730					735					
Ser	Pro	Pro	Ser	Pro	Gln	Ala	Ser	Ser	Leu	Ser	Gly	Pro	Ser	Pro					
				740					745					750					
Ala	Ser	Ser	Arg	Leu	Ser	Ser	Ser	Ser	Leu	Ser	Ser	Leu	Gly	Glu					
				755					760					765					
Asp	Gln	Asp	Ser	Val	Leu	Thr	Pro	Glu	Glu	Val	Ala	Leu	Cys	Leu					
				770					775					780					
Glu	Leu	Ser	Glu	Gly	Glu	Glu	Thr	Pro	Arg	Asn	Ser	Val	Ser	Pro					
				785					790					795					
Met	Pro	Arg	Ala	Pro	Ser	Pro	Pro	Thr	Thr	Tyr	Gly	Tyr	Ile	Ser					
				800					805					810					
Val	Pro	Thr	Ala	Ser	Glu	Phe	Thr	Asp	Met	Gly	Arg	Thr	Gly	Gly					
				815					820					825					

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 214

aggactacac ggagcctgtg gagcttctgg ctgtgcgaat tcagctggaa 50

<210> 215

<211> 2749

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 1869, 1887

<223> unknown base

<400> 215

ctcccacggt gtccagcgcc cagaatgcgg cttctgggtcc tgctatgggg 50
 ttgcctgctg ctcccaggtt atgaagccct ggagggccca gaggaaatca 100
 gcgggttcga aggggacact gtgtccctgc agtgcaccta cagggaagag 150
 ctgagggacc accggaagta ctggtgcagg aagggtggga tcctcttctc 200
 tcgctgctct ggcaccatct atgcagaaga agaaggccag gagacaatga 250
 agggcaggggt gtccatccgt gacagccgcc aggagctctc gctcattgtg 300
 accctgtgga acctaccct gcaagacgct ggggagtact ggtgtgggggt 350
 cgaaaaacgg ggccccgatg agtctttact gatctctctg ttctcttttc 400
 caggaccctg ctgtcctccc tccccttctc ccaccttcca gcctctggct 450
 acaacacgcc tgcagcccaa ggcaaaagct cagcaaacc agcccccagg 500
 attgacttct cctgggctct acccggcagc caccacagcc aagcagggga 550
 agacaggggc tgaggcccct ccattgccag ggacttccca gtacgggcac 600
 gaaaggactt ctcagtacac aggaacctct cctcaccag cgacctctcc 650
 tcctgcaggg agtcccgc ccccatgca gctggactcc acctcagcag 700
 aggacaccag tccagctctc agcagtggca gctctaagcc cagggtgtcc 750
 atcccgatgg tccgcatact ggccccagtc ctggtgctgc tgagccttct 800
 gtcagccgca ggctgatcg cttctgcag ccacctgctc ctgtggagaa 850
 aggaagctca acaggccacg gagacacaga ggaacgagaa gttctggctc 900
 tcacgcttga ctgcggagga aaaggaagcc ccttcccagg cccctgaggg 950
 ggacgtgata tcgatgcctc ccctccacac atctgaggag gagctgggct 1000

tctcgaagtt tgtctcagcg tagggcagga ggccctcctg gccaggccag 1050
cagtgaagca gtatggctgg ctggatcagc accgattccc gaaagctttc 1100
cacctcagcc tcagagtcca gctgcccga ctccagggt ctccccaccc 1150
tccccaggct ctctcttgc atgttcagc ctgacctaga agcgtttgtc 1200
agccctggag cccagagcgg tggccttgct cttccggctg gagactggga 1250
catccctgat aggttcacat ccctgggcag agtaccaggc tgctgaccct 1300
cagcagggcc agacaaggct cagtggatct ggtctgagtt tcaatctgcc 1350
aggaactcct gggcctcatg cccagtgtcg gaccctgcct tcctccact 1400
ccagacccca ccttgtcttc cctccctggc gtcctcagac ttagtcccac 1450
ggtctcctgc atcagctggt gatgaagagg agcatgctgg ggtgagactg 1500
ggattctggc ttctctttga accacctgca tccagccctt caggaagcct 1550
gtgaaaaacg tgattcctgg cccaccaag acccaccaa accatctctg 1600
ggcttggtgc aggactctga attctaaca tgcccagtga ctgtcgcaact 1650
tgagtttgag ggccagtggg cctgatgaac gtcacaccc cttcagctta 1700
gagtctgcat ttgggctgtg acgtctccac ctgccccaat agatctgctc 1750
tgtctgcgac accagatcca cgtggggact cccctgaggc ctgctaagtc 1800
caggccttgg tcaggtcagg tgcacattgc aggataagcc caggaccggc 1850
acagaagtgg ttgcctttnc catttgccct ccctggncca tgcctttctg 1900
cctttggaaa aaatgatgaa gaaaacctg gctccttcct tgtctggaaa 1950
gggttacttg cctatgggtt ctggtggcta gagagaaaag tagaaaacca 2000
gagtgcacgt aggtgtctaa cacagaggag agtaggaaca gggcggatac 2050
ctgaaggtga ctccgagtcc agccccctgg agaaggggtc gggggtggtg 2100
gtaaagtagc acaactacta tttttttct tttccatta ttattgtttt 2150
ttaagacaga atctcgtgct gctgcccagg ctggagtga gtggcacgat 2200
ctgcaaactc cgctcctgg gttcaagtga ttcttctgcc tcagcctccc 2250
gagtagctgg gattacaggc acgcaccacc acacctggct aatttttgta 2300
cttttagtag agatggggtt tcaccatgtt ggccaggctg gtcttgaact 2350
cctgacctca aatgagcctc ctgcttcagt ctcccaaatt gccgggatta 2400
caggcatgag ccactgtgtc tggccctatt tcctttaaaa agtgaaatta 2450

agagttgttc agtatgcaaa acttggaag atggaggaga aaaagaaaag 2500
gaagaaaaaa atgtcaccca tagtctcacc agagactatc attatttcgt 2550
tttgtgttac ttctttccac tcttttcttc ttacataat ttgccggtgt 2600
tctttttaca gagcaattat cttgtatata caactttgta tcctgccttt 2650
tccaccttat cgttccatca ctttattcca gcacttctct gtgttttaca 2700
gaccttttta taaataaaat gttcatcagc tgcataaaaa aaaaaaaaaa 2749

<210> 216
<211> 332
<212> PRT
<213> Homo sapiens

<400> 216
Met Arg Leu Leu Val Leu Leu Trp Gly Cys Leu Leu Leu Pro Gly
1 5 10 15
Tyr Glu Ala Leu Glu Gly Pro Glu Glu Ile Ser Gly Phe Glu Gly
20 25 30
Asp Thr Val Ser Leu Gln Cys Thr Tyr Arg Glu Glu Leu Arg Asp
35 40 45
His Arg Lys Tyr Trp Cys Arg Lys Gly Gly Ile Leu Phe Ser Arg
50 55 60
Cys Ser Gly Thr Ile Tyr Ala Glu Glu Gly Gln Glu Thr Met
65 70 75
Lys Gly Arg Val Ser Ile Arg Asp Ser Arg Gln Glu Leu Ser Leu
80 85 90
Ile Val Thr Leu Trp Asn Leu Thr Leu Gln Asp Ala Gly Glu Tyr
95 100 105
Trp Cys Gly Val Glu Lys Arg Gly Pro Asp Glu Ser Leu Leu Ile
110 115 120
Ser Leu Phe Val Phe Pro Gly Pro Cys Cys Pro Pro Ser Pro Ser
125 130 135
Pro Thr Phe Gln Pro Leu Ala Thr Thr Arg Leu Gln Pro Lys Ala
140 145 150
Lys Ala Gln Gln Thr Gln Pro Pro Gly Leu Thr Ser Pro Gly Leu
155 160 165
Tyr Pro Ala Ala Thr Thr Ala Lys Gln Gly Lys Thr Gly Ala Glu
170 175 180
Ala Pro Pro Leu Pro Gly Thr Ser Gln Tyr Gly His Glu Arg Thr
185 190 195
Ser Gln Tyr Thr Gly Thr Ser Pro His Pro Ala Thr Ser Pro Pro

	200		205		210
Ala Gly Ser Ser	Arg Pro Pro Met Gln	Leu Asp Ser Thr Ser	Ala		
	215	220	225		
Glu Asp Thr Ser	Pro Ala Leu Ser Ser	Gly Ser Ser Lys Pro	Arg		
	230	235	240		
Val Ser Ile Pro	Met Val Arg Ile Leu	Ala Pro Val Leu Val	Leu		
	245	250	255		
Leu Ser Leu Leu	Ser Ala Ala Gly Leu	Ile Ala Phe Cys Ser	His		
	260	265	270		
Leu Leu Leu Trp	Arg Lys Glu Ala Gln	Gln Ala Thr Glu Thr	Gln		
	275	280	285		
Arg Asn Glu Lys	Phe Trp Leu Ser Arg	Leu Thr Ala Glu Glu	Lys		
	290	295	300		
Glu Ala Pro Ser	Gln Ala Pro Glu Gly	Asp Val Ile Ser Met	Pro		
	305	310	315		
Pro Leu His Thr	Ser Glu Glu Glu Leu	Gly Phe Ser Lys Phe	Val		
	320	325	330		
Ser Ala					

<210> 217
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 217
 ccctgcagtg cacctacagg gaag 24

<210> 218
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 218
 ctgtcttccc ctgcttggt gtgg 24

<210> 219
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 219
 ggtgcaggaa ggggtgggatc ctcttctctc gctgctctgg ccacatc 47

<210> 220
 <211> 950
 <212> DNA
 <213> Homo sapiens

<400> 220
 ttgtgactaa aagctggcct agcaggccag ggagtgcagc tgcaggcgtg 50
 ggggtggcag gagccgcaga gccagagcag acagccgaga aacagggtgga 100
 cagtgtgaaa gaaccagtgg tctcgctctg ttgcccaggc tagagtgtac 150
 tggcgtgatc atagctcaact gcagcctcag actcctggac ttgagaaatc 200
 ctctgcctt agcctcctgc atatctggga ctccaggggt gcactcaagc 250
 cctgtttctt ctcttctgt gagtggacca cggaggctgg tgagctgcct 300
 gtcaccccaa agctcagctc tgagccagag tgggtggtggc tccacctctg 350
 ccgccggcat agaagccagg agcagggctc tcagaaggcg gtggtgcca 400
 gctgggatca tgttgttggc cctggtctgt ctgctcagct gcctgctacc 450
 ctccagttag gccaaagctct acggtcggtt tgaactggcc agagtgtac 500
 atgacttcgg gctggacgga taccggggat acagcctggc tgactgggtc 550
 tgctttgctt atttcacaag cggtttcaac gcagctgctt tggactacga 600
 ggctgatggg agcaccaaca acgggatctt ccagatcaac agccggaggt 650
 ggtgcagcaa cctcaccocg aacgtcccca acgtgtgccg gatgtactgc 700
 tcagatttgt tgaatcctaa tctcaaggat accgttatct gtgccatgaa 750
 gataacccaa gagcctcagg gtctgggtta ctgggaggcc tggaggcatc 800
 actgccaggg aaaagacctc actgaatggg tggatggctg tgacttctag 850
 gatggacgga accatgcaca gcaggctggg aaatgtggtt tggttcctga 900
 cctaggcttg ggaagacaag ccagcgaata aaggatggtt gaacgtgaaa 950

<210> 221
 <211> 146
 <212> PRT
 <213> Homo sapiens

<400> 221
 Met Leu Leu Ala Leu Val Cys Leu Leu Ser Cys Leu Leu Pro Ser
 1 5 10 15
 Ser Glu Ala Lys Leu Tyr Gly Arg Cys Glu Leu Ala Arg Val Leu
 20 25 30

His Asp Phe Gly Leu Asp Gly Tyr Arg Gly Tyr Ser Leu Ala Asp
35 40 45
Trp Val Cys Leu Ala Tyr Phe Thr Ser Gly Phe Asn Ala Ala Ala
50 55 60
Leu Asp Tyr Glu Ala Asp Gly Ser Thr Asn Asn Gly Ile Phe Gln
65 70 75
Ile Asn Ser Arg Arg Trp Cys Ser Asn Leu Thr Pro Asn Val Pro
80 85 90
Asn Val Cys Arg Met Tyr Cys Ser Asp Leu Leu Asn Pro Asn Leu
95 100 105
Lys Asp Thr Val Ile Cys Ala Met Lys Ile Thr Gln Glu Pro Gln
110 115 120
Gly Leu Gly Tyr Trp Glu Ala Trp Arg His His Cys Gln Gly Lys
125 130 135
Asp Leu Thr Glu Trp Val Asp Gly Cys Asp Phe
140 145

<210> 222
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 222
gggatcatgt tggtagccct ggtc 24

<210> 223
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 223
gcaaggcaga cccagtcagc cag 23

<210> 224
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 224
ctgcctgcta ccctccaagt gaggccaagc tctacggtcg ttgtg 45

<210> 225

<211> 2049
<212> DNA
<213> Homo sapiens

<400> 225

agccgctgcc ccgggccggg cgcccgggc ggcacatga gtccccgctc 50
gtgcctgctg tcgtgctgcc tctcgtctt cgccgtctt tcagccgccg 100
cgagcaactg gctgtacctg gccaaactgt cgtcgggtgg gagcatctca 150
gaggaggaga cgtgagagaa actcaagggc ctgatccaga ggcaggtgca 200
gatgtgcaag cggaacctgg aagtcattga ctccgtgctc cgccgtgccc 250
agctggccat tgaggagtgc cagtaccagt tccggaaccg gcgctggaac 300
tgctccacac tcgactcctt gcccgctctt ggcaaggtgg tgacgcaagg 350
gactcgggag gcggccttcg tgtacgcat ctcttcggca ggtgtggcct 400
ttgcagtgc gcggcgctgc agcagtggg agctggagaa gtgcggctgt 450
gacaggacag tgcatggggt cagccacag ggcttcagt ggtcaggatg 500
ctctgacaac atcgctacg gtgtggcctt ctccagtcg tttgtgatg 550
tgccggagag aagcaagggg gcctcgtcca gcagagccct catgaacctc 600
cacaacaatg aggccggcag gaaggccatc ctgacacaca tgcgggtgga 650
atgcaagtgc cacggggtgt caggctcctg tgaggtaaag acgtgctggc 700
gagccgtgcc gcccttcgc cagggtgggtc acgcactgaa ggagaagttt 750
gatggtgcca ctgagggtga gccacgcgc gtgggctcct ccagggcact 800
ggtaccacgc aacgcacagt tcaagccga cacagatgag gacctggtgt 850
acttgagacc tagccccgac ttctgtgagc aggacatgcg cagcggcgtg 900
ctgggcacga ggggccgcac atgcaacaag acgtccaagg ccatcgacgg 950
ctgtgagctg ctgtgctgtg gcgcgggctt ccacacggcg cagggtggagc 1000
tggctgaacg ctgcagctgc aaattccact ggtgctgctt cgtcaagtgc 1050
cggcagtgcc agcggctcgt ggagttgcac acgtgccgat gaccgcctgc 1100
ctagccctgc gccggcaacc acctagtggc ccagggaagg ccgataattt 1150
aaacagtctc ccaccaccta cccaagaga tactggttgt attttttgtt 1200
ctggttttgt ttttgggtcc tcatgttatt tattgccga accaggcagg 1250
caacccaag ggcaccaacc agggcctccc caaagcctgg gcctttgtgg 1300
ctgccactga ccaaaggac ctgtcgtgt ccgctggctg cccgcatgtg 1350

gctgccactg accactcagt tggtatctgt gtccgttttt ctacttgcag 1400
 acctaaggtg gagtaacaag gagtattacc accacatggc tactgaccgt 1450
 gtcacatggg aagagggggc cttatggcag ggaaaatagg taccgacttg 1500
 atggaagtca caccctctgg aaaaaagaac tottaactct ccagcacaca 1550
 tacacatgga ctccctggcag cttgagccta gaagccatgt ctctcaaagt 1600
 ccctgagaaa gggaacaagc agataccagg tcaagggcac cagggttcatt 1650
 tcagccctta catggacagc tagagggttcg atatctgtgg gtccttccag 1700
 gcaagaagag ggagatgaga gcaagagacg actgaagtcc caccctagaa 1750
 cccagcctgc cccagcctgc ccctgggaag aggaaactta accactcccc 1800
 agaccacact aggcaggcat ataggctgcc atcctggacc agggatcccg 1850
 gctgtgcctt tgcagtcatg cccgagtcac ctttcacagc gctgttcctc 1900
 catgaaactg aaaaacacac acacacacac acacacacac acacacacac 1950
 acacacacac ggacacacac acacacctgc gagagagagg gaggaaaggg 2000
 ctgtgccttt gcagtcatgc ccgagtcacc tttcacagca ctgttcctc 2049

<210> 226

<211> 351

<212> PRT

<213> Homo sapiens

<400> 226

Met	Ser	Pro	Arg	Ser	Cys	Leu	Arg	Ser	Leu	Arg	Leu	Leu	Val	Phe
1				5					10					15
Ala	Val	Phe	Ser	Ala	Ala	Ala	Ser	Asn	Trp	Leu	Tyr	Leu	Ala	Lys
				20					25					30
Leu	Ser	Ser	Val	Gly	Ser	Ile	Ser	Glu	Glu	Glu	Thr	Cys	Glu	Lys
				35					40					45
Leu	Lys	Gly	Leu	Ile	Gln	Arg	Gln	Val	Gln	Met	Cys	Lys	Arg	Asn
				50					55					60
Leu	Glu	Val	Met	Asp	Ser	Val	Arg	Arg	Gly	Ala	Gln	Leu	Ala	Ile
				65					70					75
Glu	Glu	Cys	Gln	Tyr	Gln	Phe	Arg	Asn	Arg	Arg	Trp	Asn	Cys	Ser
				80					85					90
Thr	Leu	Asp	Ser	Leu	Pro	Val	Phe	Gly	Lys	Val	Val	Thr	Gln	Gly
				95					100					105
Thr	Arg	Glu	Ala	Ala	Phe	Val	Tyr	Ala	Ile	Ser	Ser	Ala	Gly	Val
				110					115					120

Ala	Phe	Ala	Val	Thr	Arg	Ala	Cys	Ser	Ser	Gly	Glu	Leu	Glu	Lys
				125					130					135
Cys	Gly	Cys	Asp	Arg	Thr	Val	His	Gly	Val	Ser	Pro	Gln	Gly	Phe
				140					145					150
Gln	Trp	Ser	Gly	Cys	Ser	Asp	Asn	Ile	Ala	Tyr	Gly	Val	Ala	Phe
				155					160					165
Ser	Gln	Ser	Phe	Val	Asp	Val	Arg	Glu	Arg	Ser	Lys	Gly	Ala	Ser
				170					175					180
Ser	Ser	Arg	Ala	Leu	Met	Asn	Leu	His	Asn	Asn	Glu	Ala	Gly	Arg
				185					190					195
Lys	Ala	Ile	Leu	Thr	His	Met	Arg	Val	Glu	Cys	Lys	Cys	His	Gly
				200					205					210
Val	Ser	Gly	Ser	Cys	Glu	Val	Lys	Thr	Cys	Trp	Arg	Ala	Val	Pro
				215					220					225
Pro	Phe	Arg	Gln	Val	Gly	His	Ala	Leu	Lys	Glu	Lys	Phe	Asp	Gly
				230					235					240
Ala	Thr	Glu	Val	Glu	Pro	Arg	Arg	Val	Gly	Ser	Ser	Arg	Ala	Leu
				245					250					255
Val	Pro	Arg	Asn	Ala	Gln	Phe	Lys	Pro	His	Thr	Asp	Glu	Asp	Leu
				260					265					270
Val	Tyr	Leu	Glu	Pro	Ser	Pro	Asp	Phe	Cys	Glu	Gln	Asp	Met	Arg
				275					280					285
Ser	Gly	Val	Leu	Gly	Thr	Arg	Gly	Arg	Thr	Cys	Asn	Lys	Thr	Ser
				290					295					300
Lys	Ala	Ile	Asp	Gly	Cys	Glu	Leu	Leu	Cys	Cys	Gly	Arg	Gly	Phe
				305					310					315
His	Thr	Ala	Gln	Val	Glu	Leu	Ala	Glu	Arg	Cys	Ser	Cys	Lys	Phe
				320					325					330
His	Trp	Cys	Cys	Phe	Val	Lys	Cys	Arg	Gln	Cys	Gln	Arg	Leu	Val
				335					340					345
Glu	Leu	His	Thr	Cys	Arg									
				350										

<210> 227

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 227

gctgcagctg caaattccac tgg 23

<210> 228
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 228
tggtgggaga ctgtttaaat tatcggcc 28

<210> 229
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 229
tgcttcgtca agtgccggca gtgccagcgg ctcgtggagt t 41

<210> 230
<211> 1355
<212> DNA
<213> Homo sapiens

<400> 230
cggacgcgtg ggcggacgcg tgggcggacg cgtgggcgga cgcgtgggct 50
gggtgcctgc atcgccatgg acaccaccag gtacagcaag tggggcggca 100
gctccgagga ggtccccgga gggccctggg gacgctgggt gactggagc 150
aggagacccc tcttcttggc cctggctgtc ctggtcacca cagtcctttg 200
ggctgtgatt ctgagtatcc tattgtccaa ggctccacg gagcgcgcgg 250
cgctgcttga cggccacgac ctgctgagga caaacgcctc gaagcagacg 300
gcggcgctgg gtgccctgaa ggaggaggtc ggagactgcc acagctgctg 350
ctcggggacg caggcgcagc tgcagaccac gcgcgcggag cttggggagg 400
cgcaggcgaa gctgatggag caggagagcg ccctgcggga actgcgtgag 450
cgcgtgaccc agggcttggc tgaagccggc aggggccgtg aggacgtccg 500
cactgagctg ttccgggcgc tggaggccgt gaggctccag aacaactcct 550
gcgagccgtg cccacgctcg tggctgtcct tcgagggtc ctgctacttt 600
ttctctgtgc caaagaogac gtgggcggcg gcgcaggatc actgcgcaga 650
tgccagcgcg cacctggtga tcgttggggg cctggatgag cagggttcc 700
tcactcgga cacgcgtggc cgtgggttact ggctgggcct gagggctgtg 750

cgccatctgg gcaaggttca gggctaccag tgggtggacg gagtctctct 800
 cagcttcagc cactggaacc agggagagcc caatgacgct tgggggcgcg 850
 agaactgtgt catgatgctg cacacggggc tgtggaacga cgcaccgtgt 900
 gacagcgaga aggacggctg gatctgtgag aaaaggcaca actgctgacc 950
 ccgcccagtg ccctggagcc gcgcccattg cagcatgtcg taccctgggg 1000
 gctgctcacc tccctggctc ctggagctga ttgccaaaga gtttttttct 1050
 tcctcatcca ccgctgctga gtctcagaaa cacttgggccc aacatagccc 1100
 tgtccagccc agtgccctggg ctctggggacc tccatgccga cctcatccta 1150
 actccactca cgagaccca acctaacctc cactagctcc aaaatccctg 1200
 ctctgcgctc cccgtgatat gcctccactt ctctccctaa ccaagggttag 1250
 gtgactgagg actggagctg tttggttttc tcgcattttc caccaaactg 1300
 gaagctgttt ttgcagcctg aggaagcatc aataaatatt tgagaaatga 1350
 aaaaa 1355

<210> 231

<211> 293

<212> PRT

<213> Homo sapiens

<400> 231

Met	Asp	Thr	Thr	Arg	Tyr	Ser	Lys	Trp	Gly	Gly	Ser	Ser	Glu	Glu
1				5					10				15	

Val	Pro	Gly	Gly	Pro	Trp	Gly	Arg	Trp	Val	His	Trp	Ser	Arg	Arg
				20					25				30	

Pro	Leu	Phe	Leu	Ala	Leu	Ala	Val	Leu	Val	Thr	Thr	Val	Leu	Trp
				35					40				45	

Ala	Val	Ile	Leu	Ser	Ile	Leu	Leu	Ser	Lys	Ala	Ser	Thr	Glu	Arg
				50					55				60	

Ala	Ala	Leu	Leu	Asp	Gly	His	Asp	Leu	Leu	Arg	Thr	Asn	Ala	Ser
				65					70				75	

Lys	Gln	Thr	Ala	Ala	Leu	Gly	Ala	Leu	Lys	Glu	Glu	Val	Gly	Asp
				80					85				90	

Cys	His	Ser	Cys	Cys	Ser	Gly	Thr	Gln	Ala	Gln	Leu	Gln	Thr	Thr
				95					100				105	

Arg	Ala	Glu	Leu	Gly	Glu	Ala	Gln	Ala	Lys	Leu	Met	Glu	Gln	Glu
				110					115				120	

Ser	Ala	Leu	Arg	Glu	Leu	Arg	Glu	Arg	Val	Thr	Gln	Gly	Leu	Ala
				125					130				135	

Glu	Ala	Gly	Arg	Gly	Arg	Glu	Asp	Val	Arg	Thr	Glu	Leu	Phe	Arg	
				140					145					150	
Ala	Leu	Glu	Ala	Val	Arg	Leu	Gln	Asn	Asn	Ser	Cys	Glu	Pro	Cys	
				155					160					165	
Pro	Thr	Ser	Trp	Leu	Ser	Phe	Glu	Gly	Ser	Cys	Tyr	Phe	Phe	Ser	
				170					175					180	
Val	Pro	Lys	Thr	Thr	Trp	Ala	Ala	Ala	Gln	Asp	His	Cys	Ala	Asp	
				185					190					195	
Ala	Ser	Ala	His	Leu	Val	Ile	Val	Gly	Gly	Leu	Asp	Glu	Gln	Gly	
				200					205					210	
Phe	Leu	Thr	Arg	Asn	Thr	Arg	Gly	Arg	Gly	Tyr	Trp	Leu	Gly	Leu	
				215					220					225	
Arg	Ala	Val	Arg	His	Leu	Gly	Lys	Val	Gln	Gly	Tyr	Gln	Trp	Val	
				230					235					240	
Asp	Gly	Val	Ser	Leu	Ser	Phe	Ser	His	Trp	Asn	Gln	Gly	Glu	Pro	
				245					250					255	
Asn	Asp	Ala	Trp	Gly	Arg	Glu	Asn	Cys	Val	Met	Met	Leu	His	Thr	
				260					265					270	
Gly	Leu	Trp	Asn	Asp	Ala	Pro	Cys	Asp	Ser	Glu	Lys	Asp	Gly	Trp	
				275					280					285	
Ile	Cys	Glu	Lys	Arg	His	Asn	Cys								
				290											

<210> 232
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 232
 gcgagaactg tgcatgatg ctgc 24

<210> 233
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 233
 gtttctgaga ctcagcagcg gtgg 24

<210> 234
 <211> 50
 <212> DNA

tggactgcga ggtctccctg tggctcgtcct ggggactgtg cggaggccac 1150
 tgtgggagggc tcgggaccaa gagcaggact cgctacgtcc ggggccagcc 1200
 cgccaacaac gggagcccct gccccgagct cgaagaagag gctgagtgcg 1250
 tccctgataa ctgctgctaa gaccagagcc ccgcagcccc tggggccccc 1300
 cggagccatg ggggtgtcggg ggctcctgtg caggctcatg ctgcaggcgg 1350
 ccgagggcac aggggggttc gcgctgtcc tgaccgcggg gagggccgcgc 1400
 cgaccatctc tgcactgaag ggccctctgg tggccggcac gggcattggg 1450
 aaacagcctc ctcttttccc aaccttgctt cttagggggc cccgtgtccc 1500
 gtctgtctc agcctcctcc tctgcagga taaagtcac cccaaggctc 1550
 cagctactct aaattatgtc tccttataag ttattgctgc tccaggagat 1600
 tgtccttcat cgtccagggg cctggctccc acgtggttgc agatacctca 1650
 gacctggtgc tctaggctgt gctgagccca ctctcccgag ggcgcatcca 1700
 agcggggggc acttgagaag tgaataaatg gggcggtttc ggaagcgtca 1750
 gtgtttccat gttatggatc tctctgcgtt tgaataaaga ctatctctgt 1800
 tgctcacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 1847

<210> 236

<211> 331

<212> PRT

<213> Homo sapiens

<400> 236

Met	Glu	Asn	Pro	Ser	Pro	Ala	Ala	Ala	Leu	Gly	Lys	Ala	Leu	Cys
1				5					10					15
Ala	Leu	Leu	Leu	Ala	Thr	Leu	Gly	Ala	Ala	Gly	Gln	Pro	Leu	Gly
				20					25					30
Gly	Glu	Ser	Ile	Cys	Ser	Ala	Arg	Ala	Pro	Ala	Lys	Tyr	Ser	Ile
				35					40					45
Thr	Phe	Thr	Gly	Lys	Trp	Ser	Gln	Thr	Ala	Phe	Pro	Lys	Gln	Tyr
				50					55					60
Pro	Leu	Phe	Arg	Pro	Pro	Ala	Gln	Trp	Ser	Ser	Leu	Leu	Gly	Ala
				65					70					75
Ala	His	Ser	Ser	Asp	Tyr	Ser	Met	Trp	Arg	Lys	Asn	Gln	Tyr	Val
				80					85					90
Ser	Asn	Gly	Leu	Arg	Asp	Phe	Ala	Glu	Arg	Gly	Glu	Ala	Trp	Ala
				95					100					105
Leu	Met	Lys	Glu	Ile	Glu	Ala	Ala	Gly	Glu	Ala	Leu	Gln	Ser	Val

110	115	120
His Glu Val Phe Ser Ala Pro Ala Val	Pro Ser Gly Thr Gly Gln	
125	130	135
Thr Ser Ala Glu Leu Glu Val Gln Arg	Arg His Ser Leu Val Ser	
140	145	150
Phe Val Val Arg Ile Val Pro Ser Pro	Asp Trp Phe Val Gly Val	
155	160	165
Asp Ser Leu Asp Leu Cys Asp Gly Asp	Arg Trp Arg Glu Gln Ala	
170	175	180
Ala Leu Asp Leu Tyr Pro Tyr Asp Ala	Gly Thr Asp Ser Gly Phe	
185	190	195
Thr Phe Ser Ser Pro Asn Phe Ala Thr	Ile Pro Gln Asp Thr Val	
200	205	210
Thr Glu Ile Thr Ser Ser Ser Pro Ser	His Pro Ala Asn Ser Phe	
215	220	225
Tyr Tyr Pro Arg Leu Lys Ala Leu Pro	Pro Ile Ala Arg Val Thr	
230	235	240
Leu Leu Arg Leu Arg Gln Ser Pro Arg	Ala Phe Ile Pro Pro Ala	
245	250	255
Pro Val Leu Pro Ser Arg Asp Asn Glu	Ile Val Asp Ser Ala Ser	
260	265	270
Val Pro Glu Thr Pro Leu Asp Cys Glu	Val Ser Leu Trp Ser Ser	
275	280	285
Trp Gly Leu Cys Gly Gly His Cys Gly	Arg Leu Gly Thr Lys Ser	
290	295	300
Arg Thr Arg Tyr Val Arg Val Gln Pro	Ala Asn Asn Gly Ser Pro	
305	310	315
Cys Pro Glu Leu Glu Glu Glu Ala Glu	Cys Val Pro Asp Asn Cys	
320	325	330

Val

<210> 237
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 237
 cagcactgcc aggggaagag gg 22

<210> 238
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 238
 caggactcgc tacgtccg 18

 <210> 239
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 239
 cagccccttc tcctcctttc tccc 24

 <210> 240
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 240
 gcagttatca gggacgcact cagcc 25

 <210> 241
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 241
 ccagcgagag gcagatag 18

 <210> 242
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 242
 cggtcaccgt gtcctgcggg atg 23

 <210> 243
 <211> 42
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 243

cagccccttc tcctcctttc tcccacgtcc tatctgcctc tc 42

<210> 244

<211> 1894

<212> DNA

<213> Homo sapiens

<400> 244

ggcggcgtcc gtgaggggct cctttgggca ggggtagtgt ttggtgtccc 50
tgtcttgcgt gatattgaca aactgaagct ttctgcacc actggactta 100
aggaagagtg tactcgtagg cggacagctt tagtggccgg ccggccgctc 150
tcatcccccg taaggagcag agtcctttgt actgaccaag atgagcaaca 200
tctacatcca ggagcctccc acgaatggga aggttttatt gaaaactaca 250
gctggagata ttgacataga gttgtggtcc aaagaagctc ctaaagcttg 300
cagaaatfff atccaactff gtttgggaagc ttattatgac aataccattt 350
ttcatagagt tgtgcctggt ttcatagtcc aaggcggaga tcctactggc 400
acagggagtg gtggagagtc tatctatgga gcgccattca aagatgaatt 450
tcattcacgg ttgcgtffta atcggagagg actggttgcc atggcaaatg 500
ctggtttctca tgataatggc agccagttff tcttcacact gggtcgagca 550
gatgaactta acaataagca taccatctff ggaaaggffa caggggatac 600
agtatataac atgttgcgac tgtcagaagt agacattgat gatgacgaaa 650
gaccacataa tccacacaaa ataaaaagct gtgaggttff gtttaatcct 700
tttgatgaca tcattccaag ggaaattaaa aggctgaaaa aagagaaacc 750
agaggaggaa gtaaagaaat tgaaacccaa aggcacaaaa aatffftagtt 800
tactfftcatt tggagaggaa gctgaggaag aagaggagga agtaaatcga 850
gttagtcaga gcatgaaggg caaaagcaaa agtagtcatg acttgcttaa 900
ggatgatcca catctcagtt ctgttccagt tgtagaaagt gaaaaagggtg 950
atgcaccaga tfftagttgat gatggagaag atgaaagtc agagcatgat 1000
gaatatattg atggtgatga aaagaacctg atgagagaaa gaattgccaa 1050
aaaattaaaa aaggacacaa gtgcgaatgt taaatcagct ggagaaggag 1100

Ser His Asp Asn Gly Ser Gln Phe Phe Phe Thr Leu Gly Arg Ala	110	115	120
Asp Glu Leu Asn Asn Lys His Thr Ile Phe Gly Lys Val Thr Gly	125	130	135
Asp Thr Val Tyr Asn Met Leu Arg Leu Ser Glu Val Asp Ile Asp	140	145	150
Asp Asp Glu Arg Pro His Asn Pro His Lys Ile Lys Ser Cys Glu	155	160	165
Val Leu Phe Asn Pro Phe Asp Asp Ile Ile Pro Arg Glu Ile Lys	170	175	180
Arg Leu Lys Lys Glu Lys Pro Glu Glu Glu Val Lys Lys Leu Lys	185	190	195
Pro Lys Gly Thr Lys Asn Phe Ser Leu Leu Ser Phe Gly Glu Glu	200	205	210
Ala Glu Glu Glu Glu Glu Glu Val Asn Arg Val Ser Gln Ser Met	215	220	225
Lys Gly Lys Ser Lys Ser Ser His Asp Leu Leu Lys Asp Asp Pro	230	235	240
His Leu Ser Ser Val Pro Val Val Glu Ser Glu Lys Gly Asp Ala	245	250	255
Pro Asp Leu Val Asp Asp Gly Glu Asp Glu Ser Ala Glu His Asp	260	265	270
Glu Tyr Ile Asp Gly Asp Glu Lys Asn Leu Met Arg Glu Arg Ile	275	280	285
Ala Lys Lys Leu Lys Lys Asp Thr Ser Ala Asn Val Lys Ser Ala	290	295	300
Gly Glu Gly Glu Val Glu Lys Lys Ser Val Ser Arg Ser Glu Glu	305	310	315
Leu Arg Lys Glu Ala Arg Gln Leu Lys Arg Glu Leu Leu Ala Ala	320	325	330
Lys Gln Lys Lys Val Glu Asn Ala Ala Lys Gln Ala Glu Lys Arg	335	340	345
Ser Glu Glu Glu Glu Ala Pro Pro Asp Gly Ala Val Ala Glu Tyr	350	355	360
Arg Arg Glu Lys Gln Lys Tyr Glu Ala Leu Arg Lys Gln Gln Ser	365	370	375
Lys Lys Gly Thr Ser Arg Glu Asp Gln Thr Leu Ala Leu Leu Asn	380	385	390
Gln Phe Lys Ser Lys Leu Thr Gln Ala Ile Ala Glu Thr Pro Glu			

	395		400		405
Asn Asp Ile Pro	Glu Thr Glu Val Glu	Asp Asp Glu Gly Trp	Met		
	410	415	420		
Ser His Val Leu	Gln Phe Glu Asp Lys	Ser Arg Lys Val Lys	Asp		
	425	430	435		
Ala Ser Met Gln	Asp Ser Asp Thr Phe	Glu Ile Tyr Asp Pro	Arg		
	440	445	450		
Asn Pro Val Asn	Lys Arg Arg Arg Glu	Glu Ser Lys Lys Leu	Met		
	455	460	465		
Arg Glu Lys Lys	Glu Arg Arg				
	470				

<210> 246

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 246

tgcgagatc ctactggcac aggg 24

<210> 247

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 247

cgagttagtc agagcatg 18

<210> 248

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 248

cagatggtgc tggtgccg 18

<210> 249

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 249
 caactggaac aggaactgag atgtggatc 29

<210> 250
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 250
 ctggttcagc agtgcaagg tctg 24

<210> 251
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 251
 cctctccgat taaaacgc 18

<210> 252
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 252
 gagaggactg gttgccatgg caaatgctgg ttctcatgat aatgg 45

<210> 253
 <211> 2456
 <212> DNA
 <213> Homo sapiens

<400> 253
 cgccgccgtt ggggctggaa gttcccgccca ggtccgtgcc gggcgagaga 50
 gatgctgccc ggcccgccctc ggctttgagg cgagagaagt gtcccagacc 100
 catttcgcct tgctgacggc gtcgagccct ggccagacat gtccacaggg 150
 ttctccttcg ggtccgggac tctgggctcc accaccgtgg ccgccggcgg 200
 gaccagcaca ggcggcggtt tctccttcgg aacgggaacg tctagcaacc 250
 cttctgtggg gctcaatatt ggaaatcttg gaagtacttc aactccagca 300
 actacatctg ctccttcaag tggttttgga accgggctct ttggatctaa 350
 acctgccact ggggttcactc taggaggaac aaatacaggt gccttgca 400

ccaagaggcc tcaagtggtc accaaatatg gaaccctgca aggaaaacag 450
atgcatgtgg ggaagacacc catccaagtc tttttaggag tccccctctc 500
cagacctcct ctaggtatcc tcaggtttgc acctccagaa cccccggagc 550
cctggaaagg aatcagagat gctaccacct acccgctgg atggagtctc 600
gctctgtcgc caggctggag tgcagtggca cgatctcggc tcaactgcaac 650
ctccgcctcc cgggttcaag cgagtctcct gcctcagcct ctgagtgtct 700
ggggctacag gtgcctgcag gagtcttggg gccagctggc ctcgatgtac 750
gtcagcacgc gggaacggta caagtggctg cgcttcagcg aggactgtct 800
gtacctgaac gtgtacgcgc cggcgcgcgc gcccggggat cccagctgc 850
cagtgatggc ctggttcccc ggaggcgctt tcatcgtggg cgctgcttct 900
tcgtacgagg gctctgactt ggccgccccg gagaaagtgg tgctgggtgtt 950
tctgcagcac aggtctggca tcttcggctt cctgagcacg gacgacagcc 1000
acgcgcgcgc gaactggggg ctgctggacc agatggcggc tctgcgctgg 1050
gtgcaggaga acatcgcagc cttcggggga gaccaggaa atgtgaccct 1100
gttcggccag tcggcggggg ccatgagcat ctcaggactg atgatgtcac 1150
ccctagcctc ggggtctctc catcgggcca tttcccagag tggcaccgcg 1200
ttattcagac ttttcatcac tagtaacca ctgaaagtgg ccaagaaggt 1250
tgcccacctg gctggatgca accacaacag cacacagatc ctggtaaact 1300
gcctgagggc actatcaggg accaaggtga tgcgtgtgtc caacaagatg 1350
agattcctcc aactgaactt ccagagagac ccggaagaga ttatctggtc 1400
catgagccct gtggtggatg gtgtgggtgat cccagatgac cctttggtgc 1450
tcctgaccca ggggaaggtt tcatctgtgc cctaccttct aggtgtcaac 1500
aacctggaat tcaattggct cttgccttat aatatcacca aggagcaggt 1550
accacttgtg gtggaggagt acctggacaa tgtcaatgag catgactgga 1600
agatgctacg aaaccgtatg atggacatag ttcaagatgc cactttcgtg 1650
tatgccacac tgcagactgc tcaactacc cgagaaaccc caatgatggg 1700
aatctgccct gctggccacg ctacaacaag gatgaaaagt acctgcagct 1750
ggattttacc acaagagtgg gcatgaagct caaggagaag aagatggctt 1800
tttggatgag tctgtaccag tctcaaagac ctgagaagca gaggcaattc 1850

taagggtggc tatgcaggaa ggagccaaag aggggtttgc cccaccatc 1900
caggccctgg ggagactagc catggacata cctggggaca agagttctac 1950
ccaccccgat ttagaactgc aggagctccc tgctgcctcc aggccaaagc 2000
tagagctttt gcctgttggtg tgggacctgc actgcccttt ccagcctgac 2050
atcccatgat gccctctac ttcactgttg acatccagtt aggccaggcc 2100
ctgtcaacac cacactgtgc tcagctctcc agcctcagga caacctcttt 2150
ttttcccttc ttcaaactct cccacccttc aatgtctcct tgtgactcct 2200
tcttatggga ggtcgaccca gactgccact gcccctgtca ctgcacccag 2250
cttggcattt accatccatc ctgctcaacc ttgttctgt ctgttcacat 2300
tggcctggag gcctagggca ggttgtgaca tggagcaaac ttttggtagt 2350
ttgggatctt ctctcccacc cacacttacc tccccaggc cactccaaa 2400
gtctatacac aggggtgggc tcttcaataa agaagtgttg attagaaaaa 2450
aaaaaa 2456

<210> 254

<211> 545

<212> PRT

<213> Homo sapiens

<400> 254

Met	Ser	Thr	Gly	Phe	Ser	Phe	Gly	Ser	Gly	Thr	Leu	Gly	Ser	Thr
1				5					10					15
Thr	Val	Ala	Ala	Gly	Gly	Thr	Ser	Thr	Gly	Gly	Val	Phe	Ser	Phe
				20					25					30
Gly	Thr	Gly	Thr	Ser	Ser	Asn	Pro	Ser	Val	Gly	Leu	Asn	Phe	Gly
				35					40					45
Asn	Leu	Gly	Ser	Thr	Ser	Thr	Pro	Ala	Thr	Thr	Ser	Ala	Pro	Ser
				50					55					60
Ser	Gly	Phe	Gly	Thr	Gly	Leu	Phe	Gly	Ser	Lys	Pro	Ala	Thr	Gly
				65					70					75
Phe	Thr	Leu	Gly	Gly	Thr	Asn	Thr	Gly	Ala	Leu	His	Thr	Lys	Arg
				80					85					90
Pro	Gln	Val	Val	Thr	Lys	Tyr	Gly	Thr	Leu	Gln	Gly	Lys	Gln	Met
				95					100					105
His	Val	Gly	Lys	Thr	Pro	Ile	Gln	Val	Phe	Leu	Gly	Val	Pro	Phe
				110					115					120
Ser	Arg	Pro	Pro	Leu	Gly	Ile	Leu	Arg	Phe	Ala	Pro	Pro	Glu	Pro
				125					130					135

	425		430		435
Leu Val Leu Leu Thr Gln Gly Lys Val Ser Ser Val Pro Tyr Leu					
	440		445		450
Leu Gly Val Asn Asn Leu Glu Phe Asn Trp Leu Leu Pro Tyr Asn					
	455		460		465
Ile Thr Lys Glu Gln Val Pro Leu Val Val Glu Glu Tyr Leu Asp					
	470		475		480
Asn Val Asn Glu His Asp Trp Lys Met Leu Arg Asn Arg Met Met					
	485		490		495
Asp Ile Val Gln Asp Ala Thr Phe Val Tyr Ala Thr Leu Gln Thr					
	500		505		510
Ala His Tyr His Arg Glu Thr Pro Met Met Gly Ile Cys Pro Ala					
	515		520		525
Gly His Ala Thr Thr Arg Met Lys Ser Thr Cys Ser Trp Ile Leu					
	530		535		540
Pro Gln Glu Trp Ala					
	545				

<210> 255
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 255
 aggtgcctgc aggagtcoctg ggg 23

<210> 256
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 256
 ccacctcagg aagccgaaga tgcc 24

<210> 257
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 257
 gaacggtaca agtggctgcg cttcagcgag gactgtctgt acctg 45

<210> 258
<211> 2764
<212> DNA
<213> Homo sapiens

<400> 258
gagaacaggc ctgtctcagg caggccctgc gcctcctatg cggagatgct 50
actgccactg ctgctgtcct cgctgctggg cgggtcccag gctatggatg 100
ggagattctg gatacgagtg caggagtcag tgatggtgcc ggagggcctg 150
tgcatctctg tgccctgctc tttctcctac ccccgacaag actggacagg 200
gtctacccca gcttatggct actggttcaa agcagtgact gagacaacca 250
agggtgctcc tgtggccaca aaccaccaga gtcgagaggt ggaaatgagc 300
acccggggcc gattccagct cactggggat cccgccaagg ggaactgctc 350
cttggtgatc agagacgcg c agatgcagga tgagtcacag tacttctttc 400
gggtggagag aggaagctat gtgacatata atttcatgaa cgatgggttc 450
tttctaaaag taacagtgtc cagcttcacg cccagacccc aggaccacaa 500
caccgacctc acctgccatg tggacttctc cagaaagggt gtgagcgcac 550
agaggaccgt ccgactccgt gtggcctatg ccccagaga ccttgttatc 600
agcatttcac gtgacaacac gccagccctg gagccccagc cccagggaaa 650
tgtcccatac ctggaagccc aaaaaggcca gttcctgcgg ctctctctgtg 700
ctgctgacag ccagccccct gccacactga gctgggtcct gcagaacaga 750
gtcctctcct cgtcccatcc ctggggccct agaccctgg ggctggagct 800
gcccgggggtg aaggctgggg attcagggcg ctacacctgc cgagcggaga 850
acaggcttgg ctcccagcag cgagccctgg acctctctgt gcagtatcct 900
ccagagaacc tgagagtgat ggtttcccaa gcaaacagga cagtccctgga 950
aaaccttggg aacggcacgt ctctcccagt actggagggc caaagcctgt 1000
gcctggtctg tgtcacacac agcagcccc cagccaggct gagctggacc 1050
cagaggggac aggtttctgag cccctcccag ccctcagacc ccggggtcct 1100
ggagctgcct cgggttcaag tggagcacga aggagagttc acctgccacg 1150
ctcggcacc actgggtcc cagcacgtct ctctcagcct ctccgtgcac 1200
tataagaagg gactcatctc aacggcattc tccaacggag cgtttctggg 1250
aatoggcacc acggctcttc ttttctctg cctggccctg atcatcatga 1300

09787060

agattctacc gaagagacgg actcagacag aaaccccgag gccaggttc 1350
 tcccggcaca gcacgatcct ggattacatc aatgtggtcc cgacggctgg 1400
 cccctgggtc cagaagcgga atcagaaagc cacaccaaagc agtcctcgga 1450
 cccctcctcc accaggtgct cctccccag aatcaaagaa gaaccagaaa 1500
 aagcagtatc agttgcccag tttcccagaa cccaaatcat cactcaagc 1550
 ccagaatcc caggagagcc aagaggagct ccattatgcc acgtcaact 1600
 tcccaggcgt cagaccagc cctgaggccc ggatgcccaa gggcaccag 1650
 gcggattatg cagaagtcaa gttccaatga gggctcttta ggcttttaga 1700
 ctgggacttc ggctagggag gaaggtagag taagagggtg aagataacag 1750
 agtgcaaagt ttccttctct cctctctct ctctcttct ctctctctct 1800
 ctcttctct ctcttttaaa aaaacatctg gccagggcac agtggctcac 1850
 gcctgtaatc ccagcacttt gggaggttga ggtgggcaga tcgcctgagg 1900
 tcgggagttc gagaccagcc tggccaaact ggtgaaacct cgtctctact 1950
 aaaaatacaa aaattagctg ggcattggtg caggcgctg taatcctacc 2000
 tacttgggaa gctgaggcag gagaatcact tgaacctggg agacggaggt 2050
 tgcagtgagc caagatcaca ccattgcacg ccagcctggg caacaaagcg 2100
 agactccatc tcaaaaaaaaa aatcctocaa atgggttggg tgtctgtaat 2150
 cccagcactt tgggaggcta aggtgggtgg attgcttgag cccaggagtt 2200
 cgagaccagc ctgggcaaca tggtgaaacc ccatctctac aaaaaataca 2250
 aaacatagct gggcttggtg gtgtgtgcct gtagtcccag ctgtcagaca 2300
 tttaaaccag agcaactcca tctggaatag gagctgaata aaatgaggct 2350
 gagacctact gggctgcatt ctacagacgt ggaggcattc taagtcacag 2400
 gatgagacag gaggtccgta caagatacag gtcataaaga ctttgctgat 2450
 aaaacagatt gcagtaaaga agccaaccaa atcccaccaa aaccaagttg 2500
 gccacgagag tgacctctgg tcgtcctcac tgctacactc ctgacagcac 2550
 catgacagtt tacaaatgcc atggcaacat caggaagtta cccgatatgt 2600
 cccaaaaggg ggaggaatga ataatccacc ccttgtttag caaataagca 2650
 agaaataacc ataaaagtgg gcaaccagca gctctaggcg ctgctcttgt 2700
 ctatggagta gccattcttt tgttccttta ctttcttaat aaacttgctt 2750

tcaccttaaa aaaa 2764

<210> 259

<211> 544

<212> PRT

<213> Homo sapiens

<400> 259

Met	Leu	Leu	Pro	Leu	Leu	Leu	Ser	Ser	Leu	Leu	Gly	Gly	Ser	Gln
1				5					10					15
Ala	Met	Asp	Gly	Arg	Phe	Trp	Ile	Arg	Val	Gln	Glu	Ser	Val	Met
				20					25					30
Val	Pro	Glu	Gly	Leu	Cys	Ile	Ser	Val	Pro	Cys	Ser	Phe	Ser	Tyr
				35					40					45
Pro	Arg	Gln	Asp	Trp	Thr	Gly	Ser	Thr	Pro	Ala	Tyr	Gly	Tyr	Trp
				50					55					60
Phe	Lys	Ala	Val	Thr	Glu	Thr	Thr	Lys	Gly	Ala	Pro	Val	Ala	Thr
				65					70					75
Asn	His	Gln	Ser	Arg	Glu	Val	Glu	Met	Ser	Thr	Arg	Gly	Arg	Phe
				80					85					90
Gln	Leu	Thr	Gly	Asp	Pro	Ala	Lys	Gly	Asn	Cys	Ser	Leu	Val	Ile
				95					100					105
Arg	Asp	Ala	Gln	Met	Gln	Asp	Glu	Ser	Gln	Tyr	Phe	Phe	Arg	Val
				110					115					120
Glu	Arg	Gly	Ser	Tyr	Val	Thr	Tyr	Asn	Phe	Met	Asn	Asp	Gly	Phe
				125					130					135
Phe	Leu	Lys	Val	Thr	Val	Leu	Ser	Phe	Thr	Pro	Arg	Pro	Gln	Asp
				140					145					150
His	Asn	Thr	Asp	Leu	Thr	Cys	His	Val	Asp	Phe	Ser	Arg	Lys	Gly
				155					160					165
Val	Ser	Ala	Gln	Arg	Thr	Val	Arg	Leu	Arg	Val	Ala	Tyr	Ala	Pro
				170					175					180
Arg	Asp	Leu	Val	Ile	Ser	Ile	Ser	Arg	Asp	Asn	Thr	Pro	Ala	Leu
				185					190					195
Glu	Pro	Gln	Pro	Gln	Gly	Asn	Val	Pro	Tyr	Leu	Glu	Ala	Gln	Lys
				200					205					210
Gly	Gln	Phe	Leu	Arg	Leu	Leu	Cys	Ala	Ala	Asp	Ser	Gln	Pro	Pro
				215					220					225
Ala	Thr	Leu	Ser	Trp	Val	Leu	Gln	Asn	Arg	Val	Leu	Ser	Ser	Ser
				230					235					240
His	Pro	Trp	Gly	Pro	Arg	Pro	Leu	Gly	Leu	Glu	Leu	Pro	Gly	Val
				245					250					255

Lys	Ala	Gly	Asp	Ser	Gly	Arg	Tyr	Thr	Cys	Arg	Ala	Glu	Asn	Arg	
				260					265					270	
Leu	Gly	Ser	Gln	Gln	Arg	Ala	Leu	Asp	Leu	Ser	Val	Gln	Tyr	Pro	
				275					280					285	
Pro	Glu	Asn	Leu	Arg	Val	Met	Val	Ser	Gln	Ala	Asn	Arg	Thr	Val	
				290					295					300	
Leu	Glu	Asn	Leu	Gly	Asn	Gly	Thr	Ser	Leu	Pro	Val	Leu	Glu	Gly	
				305					310					315	
Gln	Ser	Leu	Cys	Leu	Val	Cys	Val	Thr	His	Ser	Ser	Pro	Pro	Ala	
				320					325					330	
Arg	Leu	Ser	Trp	Thr	Gln	Arg	Gly	Gln	Val	Leu	Ser	Pro	Ser	Gln	
				335					340					345	
Pro	Ser	Asp	Pro	Gly	Val	Leu	Glu	Leu	Pro	Arg	Val	Gln	Val	Glu	
				350					355					360	
His	Glu	Gly	Glu	Phe	Thr	Cys	His	Ala	Arg	His	Pro	Leu	Gly	Ser	
				365					370					375	
Gln	His	Val	Ser	Leu	Ser	Leu	Ser	Val	His	Tyr	Lys	Lys	Gly	Leu	
				380					385					390	
Ile	Ser	Thr	Ala	Phe	Ser	Asn	Gly	Ala	Phe	Leu	Gly	Ile	Gly	Ile	
				395					400					405	
Thr	Ala	Leu	Leu	Phe	Leu	Cys	Leu	Ala	Leu	Ile	Ile	Met	Lys	Ile	
				410					415					420	
Leu	Pro	Lys	Arg	Arg	Thr	Gln	Thr	Glu	Thr	Pro	Arg	Pro	Arg	Phe	
				425					430					435	
Ser	Arg	His	Ser	Thr	Ile	Leu	Asp	Tyr	Ile	Asn	Val	Val	Pro	Thr	
				440					445					450	
Ala	Gly	Pro	Leu	Ala	Gln	Lys	Arg	Asn	Gln	Lys	Ala	Thr	Pro	Asn	
				455					460					465	
Ser	Pro	Arg	Thr	Pro	Pro	Pro	Pro	Gly	Ala	Pro	Ser	Pro	Glu	Ser	
				470					475					480	
Lys	Lys	Asn	Gln	Lys	Lys	Gln	Tyr	Gln	Leu	Pro	Ser	Phe	Pro	Glu	
				485					490					495	
Pro	Lys	Ser	Ser	Thr	Gln	Ala	Pro	Glu	Ser	Gln	Glu	Ser	Gln	Glu	
				500					505					510	
Glu	Leu	His	Tyr	Ala	Thr	Leu	Asn	Phe	Pro	Gly	Val	Arg	Pro	Arg	
				515					520					525	
Pro	Glu	Ala	Arg	Met	Pro	Lys	Gly	Thr	Gln	Ala	Asp	Tyr	Ala	Glu	
				530					535					540	
Val	Lys	Phe	Gln												

tcggatatca atgacaatga accaaaaattc ctagatgaac cttatgaggc 500
cattgtacca gagatgtctc cagaaggaac attagttatc caggtgacag 550
caagtgatgc tgacgatccc tcaagtggta ataatgctcg tctcctctac 600
agcttacttc aaggccagcc atatTTTTtct gttgaaccaa caacaggagt 650
cataagaata tcttctaaaa tggatagaga actgcaagat gagtattggg 700
taatcattca agccaaggac atgattggtc agccaggagc gttgtctgga 750
acaacaagtg tattaattaa actttcagat gttaatgaca ataagcctat 800
atttaaagaa agtttatacc gcttgactgt ctctgaatct gcacccactg 850
ggacttctat aggaacaatc atggcatatg ataatgacat aggagagaat 900
gcagaaatgg attacagcat tgaagaggat gattcgcaaa catttgacat 950
tattactaat catgaaactc aagaaggaat agttatatta aaaaagaaag 1000
tggattttga gcaccagaac cactacggta ttagagcaaa agttaaaaac 1050
catcatgttc ctgagcagct catgaagtac cacactgagg cttccaccac 1100
tttcattaag atccagggtg aagatgttga tgagcctcct cttttcctcc 1150
ttccatatta tgtatttgaa gtttttgaag aaaccacaca gggatcattt 1200
gtaggcgtgg tgtctgccac agaccagac aataggaaat ctcctatcag 1250
gtattctatt actaggagca aagtgttcaa tatcaatgat aatggtacaa 1300
tcactacaag taactcactg gatcgtgaaa tcagtgcttg gtacaaccta 1350
agtattacag ccacagaaaa atacaatata gaacagatct cttcgatccc 1400
actgtatgtg caagttctta acatcaatga tcatgctcct gagttctctc 1450
aatactatga gacttatgtt tgtgaaaatg caggctctgg tcaggtaatt 1500
cagactatca gtgcagtgga tagagatgaa tccatagaag agcaccattt 1550
ttactttaat ctatctgtag aagacactaa caattcaagt tttaaatca 1600
tagataatca agataacaca gctgtcattt tgactaatag aactggtttt 1650
aaccttcaag aagaacctgt cttctacatc tccatcttaa ttgccgacaa 1700
tggaatcccg tcacttacaa gtacaaacac ccttaccatc catgtctgtg 1750
actgtgggtga cagtgggagc acacagacct gccagtacca ggagcttgtg 1800
ctttccatgg gattcaagac agaagttatc attgctattc tcatttgcac 1850
tatgatcata tttgggttta ttttttgac tttgggttta aaacaacgga 1900

gaaaacagat tctatttcct gagaaaagtg aagatttcag agagaatata 1950
 ttccaatatg atgatgaagg ggggtggagaa gaagatacag aggcctttga 2000
 tatagcagag ctgaggagta gtaccataat gcgggaacgc aagactcgga 2050
 aaaccacaag cgctgagatc aggagcctat acaggcagtc tttgcaagtt 2100
 ggccccgaca gtgccatatt caggaaattc attctggaaa agctcgaaga 2150
 agctaatact gatccgtgtg cccctccttt tgattccctc cagacctacg 2200
 cttttgaggg aacaggggtca ttagctggat ccctgagctc cttagaatca 2250
 gcagtctctg atcaggatga aagctatgat taccttaatg agttgggacc 2300
 tcgcttttaa agattagcat gcatgtttgg ttctgcagtg cagtcaaata 2350
 attagggctt tttaccatca aaatTTTTaa aagtgcta atgtattcga 2400
 acccaatggt agtcttaaag agttttgtgc cctggctcta tggcggggaa 2450
 agccctagtc tatggagttt tctgatttcc ctggagtaaa tactccatgg 2500
 ttatttttaag ctacctacat gctgtcattg aacagagatg tggggagaaa 2550
 tgtaaacaat cagctcacag gcatcaatac aaccagattt gaagtaaaat 2600
 aatgtaggaa gatattaaaa gtagatgaga ggacacaaga tgtagtcgat 2650
 ccttatgcga ttatatcatt atttacttag gaaagagtaa aaataccaaa 2700
 cgagaaaatt taaaggagca aaaatttgca agtcaaatag aaatgtacaa 2750
 atogagataa catttacatt tctatcatat tgacatgaaa attgaaaatg 2800
 tatagtcaga gaaattttca tgaattattc catgaagtat tgtttccttt 2850
 atttaaa 2857

<210> 264
 <211> 772
 <212> PRT
 <213> Homo sapiens

<400> 264
 Met Asn Cys Tyr Leu Leu Leu Arg Phe Met Leu Gly Ile Pro Leu
 1 5 10 15
 Leu Trp Pro Cys Leu Gly Ala Thr Glu Asn Ser Gln Thr Lys Lys
 20 25 30
 Val Lys Gln Pro Val Arg Ser His Leu Arg Val Lys Arg Gly Trp
 35 40 45
 Val Trp Asn Gln Phe Phe Val Pro Glu Glu Met Asn Thr Thr Ser
 50 55 60

His	His	Ile	Gly	Gln	Leu	Arg	Ser	Asp	Leu	Asp	Asn	Gly	Asn	Asn	65	70	75
Ser	Phe	Gln	Tyr	Lys	Leu	Leu	Gly	Ala	Gly	Ala	Gly	Ser	Thr	Phe	80	85	90
Ile	Ile	Asp	Glu	Arg	Thr	Gly	Asp	Ile	Tyr	Ala	Ile	Gln	Lys	Leu	95	100	105
Asp	Arg	Glu	Glu	Arg	Ser	Leu	Tyr	Ile	Leu	Arg	Ala	Gln	Val	Ile	110	115	120
Asp	Ile	Ala	Thr	Gly	Arg	Ala	Val	Glu	Pro	Glu	Ser	Glu	Phe	Val	125	130	135
Ile	Lys	Val	Ser	Asp	Ile	Asn	Asp	Asn	Glu	Pro	Lys	Phe	Leu	Asp	140	145	150
Glu	Pro	Tyr	Glu	Ala	Ile	Val	Pro	Glu	Met	Ser	Pro	Glu	Gly	Thr	155	160	165
Leu	Val	Ile	Gln	Val	Thr	Ala	Ser	Asp	Ala	Asp	Asp	Pro	Ser	Ser	170	175	180
Gly	Asn	Asn	Ala	Arg	Leu	Leu	Tyr	Ser	Leu	Leu	Gln	Gly	Gln	Pro	185	190	195
Tyr	Phe	Ser	Val	Glu	Pro	Thr	Thr	Gly	Val	Ile	Arg	Ile	Ser	Ser	200	205	210
Lys	Met	Asp	Arg	Glu	Leu	Gln	Asp	Glu	Tyr	Trp	Val	Ile	Ile	Gln	215	220	225
Ala	Lys	Asp	Met	Ile	Gly	Gln	Pro	Gly	Ala	Leu	Ser	Gly	Thr	Thr	230	235	240
Ser	Val	Leu	Ile	Lys	Leu	Ser	Asp	Val	Asn	Asp	Asn	Lys	Pro	Ile	245	250	255
Phe	Lys	Glu	Ser	Leu	Tyr	Arg	Leu	Thr	Val	Ser	Glu	Ser	Ala	Pro	260	265	270
Thr	Gly	Thr	Ser	Ile	Gly	Thr	Ile	Met	Ala	Tyr	Asp	Asn	Asp	Ile	275	280	285
Gly	Glu	Asn	Ala	Glu	Met	Asp	Tyr	Ser	Ile	Glu	Glu	Asp	Asp	Ser	290	295	300
Gln	Thr	Phe	Asp	Ile	Ile	Thr	Asn	His	Glu	Thr	Gln	Glu	Gly	Ile	305	310	315
Val	Ile	Leu	Lys	Lys	Lys	Val	Asp	Phe	Glu	His	Gln	Asn	His	Tyr	320	325	330
Gly	Ile	Arg	Ala	Lys	Val	Lys	Asn	His	His	Val	Pro	Glu	Gln	Leu	335	340	345
Met	Lys	Tyr	His	Thr	Glu	Ala	Ser	Thr	Thr	Phe	Ile	Lys	Ile	Gln			

	350		355		360
Val Glu Asp Val	Asp Glu Pro Pro Leu	Phe Leu Leu Pro Tyr	Tyr		
	365		370		375
Val Phe Glu Val	Phe Glu Glu Thr Pro	Gln Gly Ser Phe Val	Gly		
	380		385		390
Val Val Ser Ala	Thr Asp Pro Asp Asn	Arg Lys Ser Pro Ile	Arg		
	395		400		405
Tyr Ser Ile Thr	Arg Ser Lys Val Phe	Asn Ile Asn Asp Asn	Gly		
	410		415		420
Thr Ile Thr Thr	Ser Asn Ser Leu Asp	Arg Glu Ile Ser Ala	Trp		
	425		430		435
Tyr Asn Leu Ser	Ile Thr Ala Thr Glu	Lys Tyr Asn Ile Glu	Gln		
	440		445		450
Ile Ser Ser Ile	Pro Leu Tyr Val Gln	Val Leu Asn Ile Asn	Asp		
	455		460		465
His Ala Pro Glu	Phe Ser Gln Tyr Tyr	Glu Thr Tyr Val Cys	Glu		
	470		475		480
Asn Ala Gly Ser	Gly Gln Val Ile Gln	Thr Ile Ser Ala Val	Asp		
	485		490		495
Arg Asp Glu Ser	Ile Glu Glu His His	Phe Tyr Phe Asn Leu	Ser		
	500		505		510
Val Glu Asp Thr	Asn Asn Ser Ser Phe	Thr Ile Ile Asp Asn	Gln		
	515		520		525
Asp Asn Thr Ala	Val Ile Leu Thr Asn	Arg Thr Gly Phe Asn	Leu		
	530		535		540
Gln Glu Glu Pro	Val Phe Tyr Ile Ser	Ile Leu Ile Ala Asp	Asn		
	545		550		555
Gly Ile Pro Ser	Leu Thr Ser Thr Asn	Thr Leu Thr Ile His	Val		
	560		565		570
Cys Asp Cys Gly	Asp Ser Gly Ser Thr	Gln Thr Cys Gln Tyr	Gln		
	575		580		585
Glu Leu Val Leu	Ser Met Gly Phe Lys	Thr Glu Val Ile Ile	Ala		
	590		595		600
Ile Leu Ile Cys	Ile Met Ile Ile Phe	Gly Phe Ile Phe Leu	Thr		
	605		610		615
Leu Gly Leu Lys	Gln Arg Arg Lys Gln	Ile Leu Phe Pro Glu	Lys		
	620		625		630
Ser Glu Asp Phe	Arg Glu Asn Ile Phe	Gln Tyr Asp Asp Glu	Gly		
	635		640		645

Gly	Gly	Glu	Glu	Asp	Thr	Glu	Ala	Phe	Asp	Ile	Ala	Glu	Leu	Arg	
				650					655					660	
Ser	Ser	Thr	Ile	Met	Arg	Glu	Arg	Lys	Thr	Arg	Lys	Thr	Thr	Ser	
				665					670					675	
Ala	Glu	Ile	Arg	Ser	Leu	Tyr	Arg	Gln	Ser	Leu	Gln	Val	Gly	Pro	
				680					685					690	
Asp	Ser	Ala	Ile	Phe	Arg	Lys	Phe	Ile	Leu	Glu	Lys	Leu	Glu	Glu	
				695					700					705	
Ala	Asn	Thr	Asp	Pro	Cys	Ala	Pro	Pro	Phe	Asp	Ser	Leu	Gln	Thr	
				710					715					720	
Tyr	Ala	Phe	Glu	Gly	Thr	Gly	Ser	Leu	Ala	Gly	Ser	Leu	Ser	Ser	
				725					730					735	
Leu	Glu	Ser	Ala	Val	Ser	Asp	Gln	Asp	Glu	Ser	Tyr	Asp	Tyr	Leu	
				740					745					750	
Asn	Glu	Leu	Gly	Pro	Arg	Phe	Lys	Arg	Leu	Ala	Cys	Met	Phe	Gly	
				755					760					765	
Ser	Ala	Val	Gln	Ser	Asn	Asn									
				770											

<210> 265
 <211> 349
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 24, 60, 141, 226, 228, 249, 252
 <223> unknown base

<400> 265
 atttcaaggc cagccatatt ttntgttga accaacaaca ggagtcataa 50
 gaatattnn taaaatggat agagaactgc aagatgagta ttgggtaatc 100
 attcaagcca aggacatgat tggtcagcca ggagcgttgt ntgaacaac 150
 aagtgtatta attaaacttt cagatgttaa tgacaataag cctatattta 200
 aagaaagttt ataccgcttg actgtntntg aatctgcacc cactgggant 250
 tntataggaa caatcatggc atatgataat gacataggag agaatgcaga 300
 aatggattac agcattgaag aggatgattc gcaaacattt gacattatt 349

<210> 266
 <211> 25
 <212> DNA
 <213> Artificial Sequence
 <220>

ttgcaggctct ggctatitita gttgccacag catggtatgg caatagaatc 650
 gttcaagaat tctatgaccc tatgacccca gtcaatgcca ggtacgaatt 700
 tggtcaggct ctcttcaactg gctgggctgc tgcttctctc tgccttctgg 750
 gaggtgccct actttgctgt tctgtcccc gaaaaacaac ctcttaccca 800
 acaccaaggc cctatccaaa acctgcacct tccagcgga aagactacgt 850
 gtgacacaga ggcaaaagga gaaaatcatg ttgaaacaaa ccgaaaatgg 900
 acattgagat actatcatta acattaggac cttagaattt tgggtattgt 950
 aatctgaagt atggtattac aaaacaaaca aacaaacaaa aaacccatgt 1000
 gttaaaatac tcagtgtctaa acatggctta atcttatttt atcttctttc 1050
 ctcaatatag gagggaagat ttttccattt gtattactgc ttcccattga 1100
 gtaatcatac tcaaattgggg gaaggggtgc tccttaaata tatatagata 1150
 tgtatatata catgtttttc tattaanaat agacagtaaa atactattct 1200
 cattatgttg atactagcat acttaaaata tctctaaaat aggtaaatgt 1250
 atttaattcc atattgatga agatgtttat tgggtatattt tctttttcgt 1300
 ccttatatac atatgtaaca gtcaaatac atttactctt cttcattagc 1350
 tttgggtgcc tttgccacaa gacctagcct aatttaccaa ggatgaattc 1400
 tttcaattct tcatgogtgc ctttttcata tacttatttt attttttacc 1450
 ataactttat agcacttgca togttattaa gcccttattt gttttgtgtt 1500
 tcattggtct ctatctctg aatctaacac atttcatagc ctacatttta 1550
 gtttctaaag ccaagaagaa tttattacaa atcagaactt tggaggcaaa 1600
 tctttctgca tgaccaagt gataaattcc tgttgacctt cccacacaat 1650
 ccctgtactc tgacccatag cactcttgtt tgctttgaaa atatttgtcc 1700
 aattgagtag ctgcatgctg ttccccagg tgttgtaaca caactttatt 1750
 gattgaattt ttaagctact tattcatagt tttatatccc cctaaactac 1800
 ctttttgttc cccattcctt aattgtattg ttttccaag tgtaattatc 1850
 atgcgtttta tatcttcta ataaggtgtg gtctgtttgt ctgaacaaag 1900
 tgctagactt tctggagtga taatctggtg acaaatttc tctctgtagc 1950
 tgtaagcaag tcaacttaac tttctacctc ttttttctat ctgccaaatt 2000
 gagataatga tacttaacca gttagaagag gtagtgtgaa tattaattag 2050

tttatattac tcttattctt tgaacatgaa ctatgcctat gtagtgtctt 2100
tatttgctca gctggctgag aactgaaga agtcactgaa caaacctac 2150
acacgtacct tcatgtgatt cactgccttc ctctctctac cagtctattt 2200
ccactgaaca aaacctacac acataccttc atgtggttca gtgccttcct 2250
ctctctacca gtctatttcc actgaacaaa acctacgcac ataccttcat 2300
gtggctcagt gccttcctct ctctaccagt ctatttccat tctttcagct 2350
gtgtctgaca tgtttgtgct ctgttccatt ttaacaactg ctcttacttt 2400
tccagtctgt acagaatgct atttcacttg agcaagatga tgtaatggaa 2450
aggggtgttg cactgggtgc tggagacctg gatttgagtc ttggtgctat 2500
caatcaccgt ctgtgtttga gcaaggcatt tggctgctgt aagcttattg 2550
cttcatctgt aagcgggtgt ttgtaattcc tgatcttccc acctcacagt 2600
gatgttggtg ggatccagtg agatagaata catgtaagtg tggttttgta 2650
atttaaaaag tgctatacta agggaaagaa ttgaggaatt aactgcatac 2700
gttttggtgt tgcttttcaa atgtttgaaa ataaaaaaaaa tgttaag 2747

<210> 270

<211> 211

<212> PRT

<213> Homo sapiens

<400> 270

Met	Ala	Asn	Ala	Gly	Leu	Gln	Leu	Leu	Gly	Phe	Ile	Leu	Ala	Phe
1				5					10					15
Leu	Gly	Trp	Ile	Gly	Ala	Ile	Val	Ser	Thr	Ala	Leu	Pro	Gln	Trp
				20					25					30
Arg	Ile	Tyr	Ser	Tyr	Ala	Gly	Asp	Asn	Ile	Val	Thr	Ala	Gln	Ala
				35					40					45
Met	Tyr	Glu	Gly	Leu	Trp	Met	Ser	Cys	Val	Ser	Gln	Ser	Thr	Gly
				50					55					60
Gln	Ile	Gln	Cys	Lys	Val	Phe	Asp	Ser	Leu	Leu	Asn	Leu	Ser	Ser
				65					70					75
Thr	Leu	Gln	Ala	Thr	Arg	Ala	Leu	Met	Val	Val	Gly	Ile	Leu	Leu
				80					85					90
Gly	Val	Ile	Ala	Ile	Phe	Val	Ala	Thr	Val	Gly	Met	Lys	Cys	Met
				95					100					105
Lys	Cys	Leu	Glu	Asp	Asp	Glu	Val	Gln	Lys	Met	Arg	Met	Ala	Val
				110					115					120

Ile Gly Gly Ala	Ile Phe Leu Leu Ala	Gly Leu Ala Ile Leu	Val
125		130	135
Ala Thr Ala Trp	Tyr Gly Asn Arg Ile	Val Gln Glu Phe Tyr	Asp
140		145	150
Pro Met Thr Pro	Val Asn Ala Arg Tyr	Glu Phe Gly Gln Ala	Leu
155		160	165
Phe Thr Gly Trp	Ala Ala Ala Ser Leu	Cys Leu Leu Gly Gly	Ala
170		175	180
Leu Leu Cys Cys	Ser Cys Pro Arg Lys	Thr Thr Ser Tyr Pro	Thr
185		190	195
Pro Arg Pro Tyr	Pro Lys Pro Ala Pro	Ser Ser Gly Lys Asp	Tyr
200		205	210

Val

<210> 271
 <211> 564
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 21, 69, 163, 434, 436, 444
 <223> unknown base

<400> 271
 ttctggccaa acccggggct ncagctgttg ggcttcactc cgccttcctg 50
 ggatggatcg ggcgcattc cactgccc ttcccagtg gaggatttta 100
 ctccctatgc tggcgacaac atcgtgaccg cccagcccat gtacgagggg 150
 ctgtggatgt ccngcgtgtc gcagagcacc gggcagatcc agtgcaaagt 200
 ctttgactcc ttgtgaatc tgagcagcac attgcaagca acccgtgcct 250
 tgatggtggt tggcatcctc ctgggagtga tagcaatctt tgtggccacc 300
 gttggcatga agtgatatga gtgcttgga gacgatgagg tgcagaagat 350
 gaggatggct gtcattgggg gcgcgatatt tcttcttgca ggtctggcta 400
 ttttagttgc cacagcatgg tatggcaata gaancnttca acanttctat 450
 gaccctatga cccagtcac tgccaggtag gaatttggtc aggcctctctt 500
 cactggctgg gctgctgctt ctctctgcct tctgggaggt gccctacttt 550
 gctgttcctg tccc 564

<210> 272
 <211> 498

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 30, 49, 102, 141, 147, 171, 324-325, 339-341
<223> unknown base

<400> 272
acccttgacc caacgcggcc ccccgaccgn ttcattggcca aacgcgggnc 50
tccagctgtt gggcttcatt ctccccttcc tgggatggac cggcgcccat 100
cntcagcact gccctgcccc agtggaggat ttactcctat nccggcnaca 150
acatcgtgac cgcccaggcc ntgtacgagg ggctgtggat gtccctgcgtg 200
tcgcagagca ccgggcagat ccagtgc aaa gtctttgact cccttgctga 250
atctgagcag cacattgcaa gcaaccogtg ccttgatggg ggttggcac 300
ctcctgggag tgatagcaat cttnttggcc accgttgtnn ntgaagtgt 350
tgaagtgtt ggaagacgat gaggtgcaga agatgaggat ggctgtcatt 400
gggggcgcga ttttcttct tgcaggtctg gctatttttag ttgccacagc 450
atggtatggc aatagaatcg ttcaagaatt ctatgaccct atgaccga 498

<210> 273
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 25, 57, 67, 94-95, 116, 152, 165, 212, 233, 392-394
<223> unknown base

<400> 273
gggcccgacc attatccaac cgggntcact gttggtcat ctccctcctg 50
gatgaancgc gccatcntca gactccctgc cccatggaga tttnnccat 100
gctggcgaca acatontgac cccagccat gtacgagggg ctttgaacgt 150
cngcgtgtcg cagancaccg ggcagatcca gtgcaaagtc tttgactcct 200
tgctgaatct gngcagcaca ttgcagcaac centgccctg atggtgggtg 250
gcatcctcct gggagtgtata gcaatctttg tggccaccgt tggcatgaag 300
tgtatgaagt gcttgaaga cgatgaggtg cagaagatga ggatggctgt 350
cattgggggc gcgatatttc ttcttgacag tctggctatt tnnngttgcc 400
acagcatggt atggcaatag aatcgttcaa gaattctatg accctatgac 450

gcgcgatatt tcttcttgca ggtctggcta ttttagtnnc cacagcatgg 250
 tatggcaata gnatnnttcg nggnttctat gaccctatga cccagtc aa 300
 tgccaggtag gaatttggtc aggtctcttt cactggctgg gctgctgctt 350
 ctctctgcct tctgggaggt gccctacttt gctgttcttg tccccgaa 398

<210> 276
 <211> 495
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 39, 58, 130, 234, 314, 364, 427, 450, 461, 476
 <223> unknown base

<400> 276
 agcaatgccc tgccccaggt ggaggattaa ttcctatgnt ggggacaaca 50
 ttgtgacngc ccaggccatg tacggggggc tgtggatgtc ctgctgtctg 100
 cagagcaccg ggcagatcca gtgcaaagtn tttgactcct tgctgaattt 150
 gagcagcaca ttgcaagcaa cccgtgcctt gatgggtggtt ggcactcttc 200
 tgggagtgat agcaatcttt gtggccaccg tggnaatgaa gtgtatgaag 250
 tgcttggaag acgatgaggt gcagaagatg aggatggctg tcattggggg 300
 cgcgatattt cttnttgca gctctggctat tttagttgcc acagcatggg 350
 atggcaatag aatngttcaa gaattttatg accctatgac cccagtc aa 400
 gccaggtagc aatttggtca ggcttnttct actggctggg ctgctgcttn 450
 tttctgcctt ntgggaggtg ccctantttg ctgttctctg gaacc 495

<210> 277
 <211> 200
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 34, 87, 138, 147, 163, 165-166, 172
 <223> unknown base

<400> 277
 tcataggggg gcgcgatatt ttttcttgca ggtntgggta ttttagttgc 50
 cacagcatgg tatggcaata gaatcggtca agaattntat gaccctatga 100
 cccagtc aa tgccaggtag gaatttggtc aggtctctnt cactggntgg 150
 gctgctgctt ctntnngcct tntgggaggt gccctacttt gctgttcttg 200

<210> 278
 <211> 542
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 26, 43, 55, 77, 198, 361-362, 391-392, 396
 <223> unknown base

<400> 278
 ttccctgggat ggatccgccc ccacntcac atgccctgcc ccntggagat 50
 ttacnccat gctggcgaac aacatcntga ccgcccaggc catgtacgag 100
 gggctgtgga atgtcctgcg tgtcccagag caccgggcag atccagtgc 150
 aagtctttga ctcccttgctg aatctgagca gcacattgca agcaaccntg 200
 ccttgatggt ggttggcatc ctccctgggag tgatagcaat ctttgtggcc 250
 accgttggca tgaagtgta tgaagtgtt ggaagacgat gaggtgcaga 300
 agatgaggat ggctgtcatt gggggcgaga tttttcttct tgcaggtctg 350
 gctatttttag nngccacagc atggtatggc aatcagaccc nntcanaaac 400
 tctatgaccc tatgaccca gtcaatgcca ggtacgaatt tggtcaggct 450
 ctcttcaactg gctgggctgc tgcttctctc tgcccttctg gaggtgccct 500
 actttgtgtg tcctgtcccc gaaaaacaac ctcttaccga cg 542

<210> 279
 <211> 548
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 90, 115, 147, 228, 387
 <223> unknown base

<400> 279
 cggggctgca gctgttgggc ttcatctcgc ttccctgggat ggaatggcg 50
 ccacgtcag cactgccctg ccccatggag gatttactcn tatgctggcg 100
 acaacatcgt gaccncccag gccatgtacg aggggctgtg gatgtcngcg 150
 tgtcgagag caccgggcag atccagtgc aagtctttga ctcccttgctg 200
 aatctgagca gcacattgca agcaaccntg ccttgatggt ggttggcatc 250
 ctccctgggag tgatagcaat ctttgtggcc accgttggca tgaagtgtat 300
 gaagtgttg gaagacgatg aggtgcagaa gatgaggatg gctgtcattg 350

ggggcgcgat atttcttctt gcaggtcttg ctattntag ttgccacagc 400
atggtatggc aatagaatcg ttcaagaatt ctatgaccct atgaccccag 450
tcaatgccag gtacgaattt ggtcaggctc tcttactgg ctgggctgct 500
gcttctctct gccttctggg aggtgcccta ctttgctgtt cctgcgaa 548

<210> 280

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 280

cgagcgagtc atggccaacg c 21

<210> 281

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 281

gtgtcacacg tagtctttcc cgctgg 26

<210> 282

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 282

ctgcagctgt tgggcttcat tctgccttc ctgggatgga tcg 43

<210> 283

<211> 2285

<212> DNA

<213> Homo sapiens

<400> 283

gcgtgcogtc agctcgccgg gcaccgggc ctgcacctcg ccctccgccc 50

ctgcgcctgc accgcgtaga ccgaccccc cctccagcgc gccacccgg 100

tagaggaccc ccgcccgtgc cccgaccggt cccgccttt ttgtaaaact 150

taaagcgggc gcagcattaa cgcttccgc cccggtgacc tctcaggggt 200

ctccccgcca aagggtgctc gccgctaagg aacatggcga aggtggagca 250

ggtcctgagc ctcgagccgc agcacgagct caaattccga ggtcccttca 300

ccgatgttgt caccaccaac ctaaagcttg gcaacccgac agaccgaaat 350
gtgtgtttta aggtgaagac tacagcacca cgtaggtact gtgtgaggcc 400
caacagcgga atcatcgatg caggggcctc aattaatgta tctgtgatgt 450
tacagccttt cgattatgat cccaatgaga aaagtaaaca caagtttatg 500
gttcagtcta tgtttgctcc aactgacact tcagatatgg aagcagtatg 550
gaaggaggca aaaccggaag accttatgga ttcaaaactt agatgtgtgt 600
ttgaattgcc agcagagaat gataaaccac atgatgtaga aataaataaa 650
attatatcca caactgcato aaagacagaa acaccaatag tgtctaagtc 700
tctgagttct tctttggatg acaccgaagt taagaagggt atggaagaat 750
gtaagaggct gcaaggtgaa gttcagaggc tacgggagga gaacaagcag 800
ttcaaggaag aagatggact gcggatgagg aagacagtgc agagcaacag 850
ccccatttca gcattagccc caactgggaa ggaagaaggc cttagcaccc 900
ggctcttggc tctgggtggt ttgttcttta tcgttggtgt aattattggg 950
aagattgcct tgtagaggta gcatgcacag gatggtaa at tggattggtg 1000
gatccaccat atcatgggat ttaaatttat cataaccatg tgtaaaaaga 1050
aattaatgta tgatgacatc tcacaggtct tgcctttaa ttaccctcc 1100
ctgcacacac atacacagat acacacacac aaatataatg taacgatctt 1150
ttagaaagtt aaaaatgtat agtaactgat tgagggggaa aaagaatgat 1200
ctttattaat gacaagggaa accatgagta atgccacaat ggcatattgt 1250
aaatgtcatt ttaaacattg gtaggccttg gtacatgatg ctggattacc 1300
tctcttaaaa tgacaccctt cctcgctgtg tgggtgctggc ccttggggag 1350
ctggagccca gcatgctggg gagtgcggtc agctccacac agtagtcccc 1400
acgtggccca ctcccgccc aggctgcttt ccgtgtcttc agttctgtcc 1450
aagccatcag ctcttgga ctgatgaaca gagtcagaag ccaaaggaa 1500
ttgcaactgtg gcagcatcag acgtactcgt cataagtga aggcgtgtgt 1550
tgactgattg acccagcgct ttggaaataa atggcagtgc tttgttact 1600
taaagggacc aagctaaatt tgtattggtt catgtagtga agtcaaactg 1650
ttattcagag atgtttaatg catatttaac ttatttaatg tatttcatct 1700
catgttttct tattgtcaca agagtacagt taatgctgcg tgctgctgaa 1750

Pro	Ile	Val	Ser	Lys	Ser	Leu	Ser	Ser	Ser	Leu	Asp	Asp	Thr	Glu
				155					160					165
Val	Lys	Lys	Val	Met	Glu	Glu	Cys	Lys	Arg	Leu	Gln	Gly	Glu	Val
				170					175					180
Gln	Arg	Leu	Arg	Glu	Glu	Asn	Lys	Gln	Phe	Lys	Glu	Glu	Asp	Gly
				185					190					195
Leu	Arg	Met	Arg	Lys	Thr	Val	Gln	Ser	Asn	Ser	Pro	Ile	Ser	Ala
				200					205					210
Leu	Ala	Pro	Thr	Gly	Lys	Glu	Glu	Gly	Leu	Ser	Thr	Arg	Leu	Leu
				215					220					225
Ala	Leu	Val	Val	Leu	Phe	Phe	Ile	Val	Gly	Val	Ile	Ile	Gly	Lys
				230					235					240

Ile Ala Leu

<210> 285
 <211> 418
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 40, 53, 68, 119, 134, 177-178, 255
 <223> unknown base

<400> 285
 gtcagtcttc tagattgtcc ttatcccacc tttcaaccan tactcacatt 50
 tonagcgccc aggtccangt ctgagcctga cttccccttg gggacctagc 100
 ctggagtcag gacaatggnt cgggctgcag aggnntagaa gcgagggcac 150
 cagcagtttt ggggtggggag caagggngga gagaaactct tcagcgaatc 200
 cttctagtag tagttgagag tttgactgtg aattaatttt atgccataaa 250
 agacnaaccc agttctgttt gactatgtag catcttgaaa agaaaaatta 300
 taataaagcc ccaaaattaa gaattctttt gtcattttgt cacatttgct 350
 ctatgggggg aattattatt ttatcatttt tattattttg ccattggaag 400
 gttaacttta aaatgagc 418

<210> 286
 <211> 543
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 73, 97

<223> unknown base

<400> 286

tattgtaaaag gccatttttaa accatttggtg ggccttggtg catgatgctg 50
gattacctcc ttaaattgaca ccnttcctcg cctgttggtg ctggccnttg 100
gggagctgga gccccagcat gctggggagt gcggtcagct ccacacagta 150
gtccccacgt ggcccactcc cggcccaggc tgctttcogt gtcttcagtt 200
ctgtccaagc catcagctcc ttgggactga tgaacagagt cagaagccca 250
aaggaattgc cactgtggca gcatcagacg tactcgatcat aagtgaagg 300
cgtgtgttga ctgattgacc cagcgctttg gaaataaatg gcagtgcctt 350
gttcacttaa agggaccaag ctaaattgta ttggttcatg tagtgaagtc 400
aaactgttat tcagagatgt ttaatgcata ttttaacttat ttaatgtatt 450
tcattctcatg ttttcttatt gtcacaagag tacagttaat gctgcgtgct 500
gctgaactct gttgggtgaa ctggtattgc tgctggaggg ctg 543

<210> 287

<211> 270

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 38, 64, 72, 164, 198, 200, 220, 222, 229, 242

<223> unknown base

<400> 287

ccctgggtggt tttgttcttt aattcggttg tgtaattntt gggaagattg 50
cttgtagagg tagnatgcac cnggctggta aattggattg gtggatccac 100
catatccatg ggattttaaat ttatcataac catgtgtaaa aagaaattaa 150
tgtatgatga catntcacag gtattgcctt taaattaccc atccctgnan 200
acacatacac agatacacan anacaaatnt aatgtaacga tnttttagaa 250
agttaaaaaat gtatagtaac 270

<210> 288

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 35, 116, 129, 197, 278, 294, 297, 349, 351

<223> unknown base

<400> 288
 ggtggcccat tcccggccca ggctgctttc cggtnnttcag ttctgtccaa 50
 gccatcagct ccttgggact gatgaacaga gtcagaagcc caaaggaatt 100
 gcaactgtggc agcatnagac gtacttgtna taagtgagag gcgtgtgttg 150
 actgattgac ccagcgcttt ggaaataaat ggcagtgcct tgttcantta 200
 aagggaccaa gctaaatttg tattggttca tgtagtgaag tcaaactgtt 250
 attcagagat gtttaatgca tatttaantt atttaatgta ttnatntca 300
 tgttttctta ttgtcacaag agtacagtta atgctgcgtg ctgotgaant 350
 ntgttgggtg aactggtatt gctgctggag ggctgtgggc tcctctgtct 400
 ttggagagtc tggatcatgtg gaggtggg 428

<210> 289
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 289
 tgctttccgt gtcttcagtt ctgtccaagc catcagctcc ttgggacttg 50
 atgaacagag tcagaagccc aaaggaattg cactgtggca gcatcagacg 100
 tactcgtcat aagtgagagg cgtgtgttga ctgattgacc cagcgctttg 150
 gaaataaatg gcagtgcctt gttcacttaa agggaccaag ctaaatttgt 200
 attggttcat gtagtgaagt caaactgtta ttcagagatg tttaatgcat 250
 atttaactta tttaatgtat ttcactctcat gttttcttat tgtcacaaga 300
 gtacagttaa tgctgcgtgc 320

<210> 290
 <211> 609
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 57, 60, 186, 235, 244, 304, 339, 355, 359, 361, 387, 432, 441,
 447, 481, 513, 532, 584, 598
 <223> unknown base

<400> 290
 aaacctttaa aagttgaggg gaaaagaatg atcctttatt aatgacaagg 50
 gaaaccntgn gtaatgccac aatggcatat tgtaaatgtc attttaaaca 100
 ttggtaggcc ttggtacatg atgctggatt acctctctta aaatgacacc 150
 cttcctcgcc tgttgggtgct ggcccttggg gagctngagc ccagcatgct 200

ggggagtgcg gtctgctcca cacagtagtc cccangtggc ccantcccgg 250
 cccaggctgc tttccgtgtc ttcagttctg tccaagccat cagctccttg 300
 ggantgatga acagagtcag aagcccaaag gaattgcant gtggcagcat 350
 cagangtant ngtcataagt gagaggcgtg tgttgantga ttgaccagc 400
 gctttggaaa taaatggcag tgctttgttc anttaaaggg nccaagntaa 450
 atttgtattg gttcatgtag tgaagtcaaa ntgttattca gagatgttta 500
 atgcatattt aanttattta atgtatttca tntcatgttt tcttattgtc 550
 acaagggtag agttaatgct gcgtgctgct gaantctgtt gggatgaantg 600
 gtattgctg 609

<210> 291
 <211> 493
 <212> DNA
 <213> Homo sapiens

<400> 291
 ggcccttggg gagctggagc ccagcatgct ggggagtgcg gtcagctcca 50
 cacagtagtc cccacgtggc ccactcccgg cccaggctgc tttccgtgtc 100
 ttcagttctg tccaagccat cagctccttg ggactgatga acagagtcag 150
 aagcccaaag gaattgcact gtggcagcat cagacgtact cgtcataagt 200
 gagaggcgtg tgttgactga ttgaccagc gctttggaaa taaatggcag 250
 tgctttgttc acttaaaggg accaagctaa atttgtattg gttcatgtag 300
 tgaagtcaaa ctgttattca gagatgttta atgcatattt aacttattta 350
 atgtatttca tctcatgttt tcttattgtc acaagagtag agttaatgct 400
 gcgtgctgct gaactctgtt gggatgaactg gtattgctgc tggagggctg 450
 tgggctcctc tgtctctgga gagtctgggc atgtggaggt ggg 493

<210> 292
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 292
 gcaccaccgt aggtacttgt gtgaggc 27

<210> 293
 <211> 23
 <212> DNA

aataaaaagtg gaggcaagaa acgtcgaggt tctaagagga gcaggagaga 900
agctagtggg ggtgaccaa gagaggggtac cagagagcat ctgcaggaga 950
gagcgaaggg tgggagaaga agaaaaaat ctggccggg tcagaggatt 1000
gccgaaggga gcccttcctt tcagtggacc cgggtcaaga atacccacat 1050
tccgaagggc tgggcacgag gaggcattgg ggacgctacc ttggactatg 1100
actatgctct tctggagctg aagcgtgctc aaaaaagaa atacatggaa 1150
cttggaatca gcccaacgat caagaaaatg cctgggtgaa tgatccactt 1200
ctcaggattt gataacgata gggctgatca gttggtctat cggttttgca 1250
gtgtgtccga cgaatccaat gatctccttt accaatactg cgatgctgag 1300
tcgggctcca ccggttcggg ggtctatctg cgtctgaaag atccagacaa 1350
aaagaattgg aagcgcaaaa tcattgcggg ctactcaggg caccagtggg 1400
tggatgtcca cggggttcag aaggactaca acgttgctgt tcgcatcact 1450
cccctaaaat acgccagat ttgcctctgg attcacggga acgatgccaa 1500
ttgtgcttac ggctaacaga gacctgaaac agggcggtgt atcatctaaa 1550
tcacagagaa aaccagctct gcttaccgta gtgagatcac ttcatagggt 1600
atgcctggac ttgaactctg tcaatagcat ttcaacattt ttcaaatca 1650
ggagattttc gtccatttaa aaaatgtata ggtgcagata ttgaaactag 1700
gtgggcactt caatgccaa tatatactct tctttacatg gtgatgagtt 1750
tcatttgtag aaaaattttg ttgccttctt aaaaattaga cacactttaa 1800
accttcaaac aggtattata aataacatgt gactccttaa tggacttatt 1850
ctcagggtcc tactctaaga agaatcta ataggatgctgg ttgtgtatta 1900
aatgtgaaat tgcatagata aaggtagatg gtaaagcaat tagtatcaga 1950
atagagacag aaagttacaa cacagtttgt actactctga gatggatcca 2000
ttcagctcat gccctcaatg tttatattgt gttatctgtt gggctctggga 2050
catttagttt agtttttttg aagaattaca aatcagaaga aaaagcaagc 2100
attataaaca aaactaataa ctgttttact gctttaagaa ataacaatta 2150
caatgtgtat tatttaaaaa tgggagaaat agtttgttct atgaaataaa 2200
cctagtttag aaataggga gctgagacat tttaagatct caagttttta 2250
tttaactaat actcaaaata tggacttttc atgtatgcat agggaagaca 2300

cttcacaaat tatgaatgat catgtgttga aagccacatt attttatgct 2350
 atacattcta tgtatgaggt gctacatttt taggacaaaag aattctgtaa 2400
 tctttttcaa gaaagagtct ttttctcctt gacaaaatcc agcttttgta 2450
 tgaggactat aggggtgaatt ctctgattag taattttaga tatgtccttt 2500
 cctaaaaaatg aataaaatgt atgaatatga 2530

<210> 296

<211> 413

<212> PRT

<213> Homo sapiens

<400> 296

Met	Glu	Asn	Met	Leu	Leu	Trp	Leu	Ile	Phe	Phe	Thr	Pro	Gly	Trp	
1				5					10					15	
Thr	Leu	Ile	Asp	Gly	Ser	Glu	Met	Glu	Trp	Asp	Phe	Met	Trp	His	
				20					25					30	
Leu	Arg	Lys	Val	Pro	Arg	Ile	Val	Ser	Glu	Arg	Thr	Phe	His	Leu	
				35					40					45	
Thr	Ser	Pro	Ala	Phe	Glu	Ala	Asp	Ala	Lys	Met	Met	Val	Asn	Thr	
				50					55					60	
Val	Cys	Gly	Ile	Glu	Cys	Gln	Lys	Glu	Leu	Pro	Thr	Pro	Ser	Leu	
				65					70					75	
Ser	Glu	Leu	Glu	Asp	Tyr	Leu	Ser	Tyr	Glu	Thr	Val	Phe	Glu	Asn	
				80					85					90	
Gly	Thr	Arg	Thr	Leu	Thr	Arg	Val	Lys	Val	Gln	Asp	Leu	Val	Leu	
				95					100					105	
Glu	Pro	Thr	Gln	Asn	Ile	Thr	Thr	Lys	Gly	Val	Ser	Val	Arg	Arg	
				110					115					120	
Lys	Arg	Gln	Val	Tyr	Gly	Thr	Asp	Ser	Arg	Phe	Ser	Ile	Leu	Asp	
				125					130					135	
Lys	Arg	Phe	Leu	Thr	Asn	Phe	Pro	Phe	Ser	Thr	Ala	Val	Lys	Leu	
				140					145					150	
Ser	Thr	Gly	Cys	Ser	Gly	Ile	Leu	Ile	Ser	Pro	Gln	His	Val	Leu	
				155					160					165	
Thr	Ala	Ala	His	Cys	Val	His	Asp	Gly	Lys	Asp	Tyr	Val	Lys	Gly	
				170					175					180	
Ser	Lys	Lys	Leu	Arg	Val	Gly	Leu	Leu	Lys	Met	Arg	Asn	Lys	Ser	
				185					190					195	
Gly	Gly	Lys	Lys	Arg	Arg	Gly	Ser	Lys	Arg	Ser	Arg	Arg	Glu	Ala	
				200					205					210	

Ser Gly Gly Asp Gln Arg Glu Gly Thr Arg Glu His Leu Gln Glu
215 220 225

Arg Ala Lys Gly Gly Arg Arg Arg Lys Lys Ser Gly Arg Gly Gln
230 235 240

Arg Ile Ala Glu Gly Arg Pro Ser Phe Gln Trp Thr Arg Val Lys
245 250 255

Asn Thr His Ile Pro Lys Gly Trp Ala Arg Gly Gly Met Gly Asp
260 265 270

Ala Thr Leu Asp Tyr Asp Tyr Ala Leu Leu Glu Leu Lys Arg Ala
275 280 285

His Lys Lys Lys Tyr Met Glu Leu Gly Ile Ser Pro Thr Ile Lys
290 295 300

Lys Met Pro Gly Gly Met Ile His Phe Ser Gly Phe Asp Asn Asp
305 310 315

Arg Ala Asp Gln Leu Val Tyr Arg Phe Cys Ser Val Ser Asp Glu
320 325 330

Ser Asn Asp Leu Leu Tyr Gln Tyr Cys Asp Ala Glu Ser Gly Ser
335 340 345

Thr Gly Ser Gly Val Tyr Leu Arg Leu Lys Asp Pro Asp Lys Lys
350 355 360

Asn Trp Lys Arg Lys Ile Ile Ala Val Tyr Ser Gly His Gln Trp
365 370 375

Val Asp Val His Gly Val Gln Lys Asp Tyr Asn Val Ala Val Arg
380 385 390

Ile Thr Pro Leu Lys Tyr Ala Gln Ile Cys Leu Trp Ile His Gly
395 400 405

Asn Asp Ala Asn Cys Ala Tyr Gly
410

<210> 297

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 297

gcatctgcag gagagagcga aggg 24

<210> 298

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 298
catcggtccc gtgaatccag aggc 24

<210> 299
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 299
gaaggaggc cttcctttca gtggaccggt gtcaagaata cccac 45

<210> 300
<211> 1869
<212> DNA
<213> Homo sapiens

<400> 300
aatgtgagag gggctgatgg aagctgatag gcaggactgg agtgtttagca 50
ccagtactgg atgtgacagc aggcagagga gcacttagca gcttattcag 100
tgtccgattc tgattccggc aaggatccaa gcatggaatg ctgccgtcgg 150
gcaactcctg gcacactgct cctctttctg gctttcctgc tcctgagttc 200
caggaccgca cgctccgagg aggaccggga cggcctatgg gatgcctggg 250
gcccatggag tgaatgctca cgcacctgag ggggaggggc ctctactct 300
ctgaggcgct gcctgagcag caagagctgt gaaggaagaa atatccgata 350
cagaacatgc agtaatgtgg actgcccacc agaagcaggt gatttccgag 400
ctcagcaatg ctcagctcat aatgatgtca agcaccatgg ccagttttat 450
gaatggcttc ctgtgtctaa tgaccctgac aacccatgtt cactcaagtg 500
ccaagccaaa ggaacaaccc tgggtgttga actagcacct aaggtcttag 550
atggtacgag ttgctataca gaatctttgg atatgtgcat cagtggttta 600
tgccaaattg ttggctgoga tcaccagctg ggaagcaccg tcaaggaaga 650
taactgtggg gtctgcaacg gagatgggtc cacctgccgg ctggtccgag 700
ggcagtataa atcccagctc tccgcaacca aatcggatga tactgtgggt 750
gcacttccct atggaagtag acatattcgc cttgtcttaa aaggtcctga 800
tcacttatat ctggaacca aaaccctcca ggggactaaa ggtgaaaaca 850
gtctcagctc cacaggaact ttccttgtgg acaattctag tgtggacttc 900

Leu	Ser	Ser	Lys	Ser	Cys	Glu	Gly	Arg	Asn	Ile	Arg	Tyr	Arg	Thr	65	70	75
Cys	Ser	Asn	Val	Asp	Cys	Pro	Pro	Glu	Ala	Gly	Asp	Phe	Arg	Ala	80	85	90
Gln	Gln	Cys	Ser	Ala	His	Asn	Asp	Val	Lys	His	His	Gly	Gln	Phe	95	100	105
Tyr	Glu	Trp	Leu	Pro	Val	Ser	Asn	Asp	Pro	Asp	Asn	Pro	Cys	Ser	110	115	120
Leu	Lys	Cys	Gln	Ala	Lys	Gly	Thr	Thr	Leu	Val	Val	Glu	Leu	Ala	125	130	135
Pro	Lys	Val	Leu	Asp	Gly	Thr	Arg	Cys	Tyr	Thr	Glu	Ser	Leu	Asp	140	145	150
Met	Cys	Ile	Ser	Gly	Leu	Cys	Gln	Ile	Val	Gly	Cys	Asp	His	Gln	155	160	165
Leu	Gly	Ser	Thr	Val	Lys	Glu	Asp	Asn	Cys	Gly	Val	Cys	Asn	Gly	170	175	180
Asp	Gly	Ser	Thr	Cys	Arg	Leu	Val	Arg	Gly	Gln	Tyr	Lys	Ser	Gln	185	190	195
Leu	Ser	Ala	Thr	Lys	Ser	Asp	Asp	Thr	Val	Val	Ala	Leu	Pro	Tyr	200	205	210
Gly	Ser	Arg	His	Ile	Arg	Leu	Val	Leu	Lys	Gly	Pro	Asp	His	Leu	215	220	225
Tyr	Leu	Glu	Thr	Lys	Thr	Leu	Gln	Gly	Thr	Lys	Gly	Glu	Asn	Ser	230	235	240
Leu	Ser	Ser	Thr	Gly	Thr	Phe	Leu	Val	Asp	Asn	Ser	Ser	Val	Asp	245	250	255
Phe	Gln	Lys	Phe	Pro	Asp	Lys	Glu	Ile	Leu	Arg	Met	Ala	Gly	Pro	260	265	270
Leu	Thr	Ala	Asp	Phe	Ile	Val	Lys	Ile	Arg	Asn	Ser	Gly	Ser	Ala	275	280	285
Asp	Ser	Thr	Val	Gln	Phe	Ile	Phe	Tyr	Gln	Pro	Ile	Ile	His	Arg	290	295	300
Trp	Arg	Glu	Thr	Asp	Phe	Phe	Pro	Cys	Ser	Ala	Thr	Cys	Gly	Gly	305	310	315
Gly	Tyr	Gln	Leu	Thr	Ser	Ala	Glu	Cys	Tyr	Asp	Leu	Arg	Ser	Asn	320	325	330
Arg	Val	Val	Ala	Asp	Gln	Tyr	Cys	His	Tyr	Tyr	Pro	Glu	Asn	Ile	335	340	345
Lys	Pro	Lys	Pro	Lys	Leu	Gln	Glu	Cys	Asn	Leu	Asp	Pro	Cys	Pro			

350	355	360
Ala Ser Asp Gly Tyr Lys Gln Ile Met	Pro Tyr Asp Leu Tyr His	
365	370	375
Pro Leu Pro Arg Trp Glu Ala Thr Pro	Trp Thr Ala Cys Ser Ser	
380	385	390
Ser Cys Gly Gly Gly Ile Gln Ser Arg	Ala Val Ser Cys Val Glu	
395	400	405
Glu Asp Ile Gln Gly His Val Thr Ser	Val Glu Glu Trp Lys Cys	
410	415	420
Met Tyr Thr Pro Lys Met Pro Ile Ala	Gln Pro Cys Asn Ile Phe	
425	430	435
Asp Cys Pro Lys Trp Leu Ala Gln Glu	Trp Ser Pro Cys Thr Val	
440	445	450
Thr Cys Gly Gln Gly Leu Arg Tyr Arg	Val Val Leu Cys Ile Asp	
455	460	465
His Arg Gly Met His Thr Gly Gly Cys	Ser Pro Lys Thr Lys Pro	
470	475	480
His Ile Lys Glu Glu Cys Ile Val Pro	Thr Pro Cys Tyr Lys Pro	
485	490	495
Lys Glu Lys Leu Pro Val Glu Ala Lys	Leu Pro Trp Phe Lys Gln	
500	505	510
Ala Gln Glu Leu Glu Glu Gly Ala Ala	Val Ser Glu Glu Pro Ser	
515	520	525

<210> 302
 <211> 1533
 <212> DNA
 <213> Homo sapiens

<400> 302
 cggacgcgtg ggcggcggct gcggaactcc cgtggagggg ccggtgggcc 50
 ctcgggcctg acagatggca gtggccactg cggcggcagt actggccgct 100
 ctgggcgggg cgctgtggct ggcggcccgc cggttcgtgg ggcccagggt 150
 ccagcggctg cgagaggcg gggaccccgg cctcatgcac gggaagactg 200
 tgctgatcac cggggcgaac agcggcctgg gccgcgccac ggccgccgag 250
 ctactgcgcc tgggagcgcg ggtgatcatg ggctgccggg accgcgcgcg 300
 cgccgaggag ggcgcgggtc agctccgccg cgagctccgc caggccgcgg 350
 agtgccggcc agagcctggc gtcagcgggg tgggcgagct catagtccgg 400
 gagctggacc tcgcctcgct gcgctcgggt gcgccttct gccaggaaat 450

gctccaggaa gagcctaggc tggatgtctt gatcaataac gcagggatct 500
tccagtgtcc ttacatgaag actgaagatg ggtttgagat gcagttcgga 550
gtgaaccatc tggggcactt tctactcacc aatcttctcc ttggactcct 600
caaaagtcca gctcccagca ggattgtggt agtttcttcc aaactttata 650
aatacggaga catcaatttt gatgacttga acagtgaaca aagctataat 700
aaaagctttt gttatagccg gagcaaaactg gctaacattc tttttaccag 750
ggaactagcc cgccgcttag aaggcacaaa tgtcaccgtc aatgtgttgc 800
atcctggtat tgtacggaca aatctgggga ggcacataca cattccactg 850
ttggtcaaac cactcttcaa tttggtgtca tgggcttttt tcaaaaactcc 900
agtagaaggt gcccagactt ccatttattt ggcctcttca cctgaggtag 950
aaggagtgtc aggaagatac tttggggatt gtaaagagga agaactgttg 1000
cccaaagcta tggatgaatc tgttgcaaga aaactctggg atatcagtga 1050
agtgatgggtt ggctgtctaa aataggaaca aggagtaaaa gagctgttta 1100
taaaactgca tatcagttat atctgtgatc aggaatggtg tggattgaga 1150
acttggtact tgaagaaaaa gaattttgat attggaatag cctgctaaga 1200
ggtacatgtg ggtatttttg agttactgaa aaattatttt tgggataaga 1250
gaatttcagc aaagatgttt taaatatata tagtaagtat aatgaataat 1300
aagtacaatg aaaaatacaa ttatattgta aaattataac tgggcaagca 1350
tggatgacat attaataattt gtcagaatta agtgactcaa agtgctatcg 1400
agaggttttt caagtatctt tgagtttcat ggccaaagtg ttaactagtt 1450
ttactacaat gtttgggtgt tgtgtggaaa ttatctgcct ggtgtgtgca 1500
cacaagtctt acttgaata aatttactgg tac 1533

<210> 303

<211> 336

<212> PRT

<213> Homo sapiens

<400> 303

Met	Ala	Val	Ala	Thr	Ala	Ala	Ala	Val	Leu	Ala	Ala	Leu	Gly	Gly
1				5					10				15	

Ala	Leu	Trp	Leu	Ala	Ala	Arg	Arg	Phe	Val	Gly	Pro	Arg	Val	Gln
				20					25					30

Arg	Leu	Arg	Arg	Gly	Gly	Asp	Pro	Gly	Leu	Met	His	Gly	Lys	Thr
				35					40					45

Val	Leu	Ile	Thr	Gly	Ala	Asn	Ser	Gly	Leu	Gly	Arg	Ala	Thr	Ala	50	55	60
Ala	Glu	Leu	Leu	Arg	Leu	Gly	Ala	Arg	Val	Ile	Met	Gly	Cys	Arg	65	70	75
Asp	Arg	Ala	Arg	Ala	Glu	Glu	Ala	Ala	Gly	Gln	Leu	Arg	Arg	Glu	80	85	90
Leu	Arg	Gln	Ala	Ala	Glu	Cys	Gly	Pro	Glu	Pro	Gly	Val	Ser	Gly	95	100	105
Val	Gly	Glu	Leu	Ile	Val	Arg	Glu	Leu	Asp	Leu	Ala	Ser	Leu	Arg	110	115	120
Ser	Val	Arg	Ala	Phe	Cys	Gln	Glu	Met	Leu	Gln	Glu	Glu	Pro	Arg	125	130	135
Leu	Asp	Val	Leu	Ile	Asn	Asn	Ala	Gly	Ile	Phe	Gln	Cys	Pro	Tyr	140	145	150
Met	Lys	Thr	Glu	Asp	Gly	Phe	Glu	Met	Gln	Phe	Gly	Val	Asn	His	155	160	165
Leu	Gly	His	Phe	Leu	Leu	Thr	Asn	Leu	Leu	Leu	Gly	Leu	Leu	Lys	170	175	180
Ser	Ser	Ala	Pro	Ser	Arg	Ile	Val	Val	Val	Ser	Ser	Lys	Leu	Tyr	185	190	195
Lys	Tyr	Gly	Asp	Ile	Asn	Phe	Asp	Asp	Leu	Asn	Ser	Glu	Gln	Ser	200	205	210
Tyr	Asn	Lys	Ser	Phe	Cys	Tyr	Ser	Arg	Ser	Lys	Leu	Ala	Asn	Ile	215	220	225
Leu	Phe	Thr	Arg	Glu	Leu	Ala	Arg	Arg	Leu	Glu	Gly	Thr	Asn	Val	230	235	240
Thr	Val	Asn	Val	Leu	His	Pro	Gly	Ile	Val	Arg	Thr	Asn	Leu	Gly	245	250	255
Arg	His	Ile	His	Ile	Pro	Leu	Leu	Val	Lys	Pro	Leu	Phe	Asn	Leu	260	265	270
Val	Ser	Trp	Ala	Phe	Phe	Lys	Thr	Pro	Val	Glu	Gly	Ala	Gln	Thr	275	280	285
Ser	Ile	Tyr	Leu	Ala	Ser	Ser	Pro	Glu	Val	Glu	Gly	Val	Ser	Gly	290	295	300
Arg	Tyr	Phe	Gly	Asp	Cys	Lys	Glu	Glu	Glu	Leu	Leu	Pro	Lys	Ala	305	310	315
Met	Asp	Glu	Ser	Val	Ala	Arg	Lys	Leu	Trp	Asp	Ile	Ser	Glu	Val	320	325	330
Met	Val	Gly	Leu	Leu	Lys												

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 307
aacgcaggga tcttccagtg cccttacatg aagactgaag atggg 45

<210> 308
<211> 1523
<212> DNA
<213> Homo sapiens

<400> 308
gagaggacga ggtgccgctg cctggagaat cctccgctgc cgtcggctcc 50
cggagcccag ccctttccta acccaaccca acctagccca gtcccagccg 100
ccagcgcttg tccctgtcac ggaccccagc gttaccatgc atcctgccgt 150
cttctatoc ttacccgacc tcagatgctc ctttctgctc ctggtaactt 200
gggtttttac tcctgtaaca actgaaataa caagtcttgc tacagagaat 250
atagatgaaa ttttaaacia tgctgatgtt gctttagtaa atttttatgc 300
tgactggtgt cgtttcagtc agatgttgca tccaattttt gaggaagctt 350
ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgtttgcc 400
agagttgatt gtgatcagca ctctgacata gccagagat acaggataag 450
caaataccca accctcaaat tgtttcgtaa tgggatgatg atgaagagag 500
aatacagggg tcagcgatca gtgaaagcat tggcagatta catcaggcaa 550
caaaaaagtg accccattca agaaattcgg gacttagcag aaatcaccac 600
tcttgatcgc agcaaaagaa atatcattgg atattttgag caaaaaggact 650
cggacaacta tagagttttt gaacgagtag cgaatatttt gcatgatgac 700
tgtgcctttc tttctgcatt tggggatgtt tcaaaaccgg aaagatatag 750
tggcgacaac ataatctaca aaccaccagg gcattctgct ccggatatgg 800
tgtacttggg agctatgaca aattttgatg tgacttacia ttggattcaa 850
gataaatgtg ttcctcttgt ccgagaaata acatttgaaa atggagagga 900
attgacagaa gaaggactgc cttttctcat actctttcac atgaaagaag 950
atacagaaag tttagaaata ttccagaatg aagtagctcg gcaattaata 1000
agtgaaaaag gtacaataaa ctttttcatg gccgattgtg acaaatttag 1050

acatcctctt ctgcacatac agaaaactcc agcagattgt cctgtaatcg 1100
ctattgacag ctttaggcat atgtatgtgt ttggagactt caaagatgta 1150
ttaattcctg gaaaactcaa gcaattcgta tttgacttac attctggaaa 1200
actgcacaga gaattccatc atggacctga cccaactgat acagccccag 1250
gagagcaagc ccaagatgta gcaagcagtc cacctgagag ctccttccag 1300
aaactagcac ccagtgaata taggtatact ctattgaggg atcgagatga 1350
gctttaaaaa cttgaaaaac agtttgtaag cctttcaaca gcagcatcaa 1400
cctacgtggg ggaaatagta aacctatatt ttcataattc tatgtgtatt 1450
tttattttga ataaacagaa agaaatttaa aaaaaaaaaa aaaaaaaaaa 1500
aaaaaaaaaa aaaaaaaaaa aaa 1523

<210> 309

<211> 406

<212> PRT

<213> Homo sapiens

<400> 309

Met	His	Pro	Ala	Val	Phe	Leu	Ser	Leu	Pro	Asp	Leu	Arg	Cys	Ser	1	5	10	15
Leu	Leu	Leu	Leu	Val	Thr	Trp	Val	Phe	Thr	Pro	Val	Thr	Thr	Glu	20	25	30	
Ile	Thr	Ser	Leu	Ala	Thr	Glu	Asn	Ile	Asp	Glu	Ile	Leu	Asn	Asn	35	40	45	
Ala	Asp	Val	Ala	Leu	Val	Asn	Phe	Tyr	Ala	Asp	Trp	Cys	Arg	Phe	50	55	60	
Ser	Gln	Met	Leu	His	Pro	Ile	Phe	Glu	Glu	Ala	Ser	Asp	Val	Ile	65	70	75	
Lys	Glu	Glu	Phe	Pro	Asn	Glu	Asn	Gln	Val	Val	Phe	Ala	Arg	Val	80	85	90	
Asp	Cys	Asp	Gln	His	Ser	Asp	Ile	Ala	Gln	Arg	Tyr	Arg	Ile	Ser	95	100	105	
Lys	Tyr	Pro	Thr	Leu	Lys	Leu	Phe	Arg	Asn	Gly	Met	Met	Met	Lys	110	115	120	
Arg	Glu	Tyr	Arg	Gly	Gln	Arg	Ser	Val	Lys	Ala	Leu	Ala	Asp	Tyr	125	130	135	
Ile	Arg	Gln	Gln	Lys	Ser	Asp	Pro	Ile	Gln	Glu	Ile	Arg	Asp	Leu	140	145	150	
Ala	Glu	Ile	Thr	Thr	Leu	Asp	Arg	Ser	Lys	Arg	Asn	Ile	Ile	Gly	155	160	165	

<222> 36, 48
<223> unknown base

<400> 310
attaaggaag aattttccaaa tgaaaatcaa gtagtntttg ccagagtnga 50
ttgtgatcag cactctgaca tagcccagag atacaggata agcaaatacc 100
caaccctcaa attgtttcgt aatgggatga tgatgaagag agaatacagg 150
ggtcagcgat cagtgaagc attggcagat ta 182

<210> 311
<211> 598
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 38, 59, 140, 169, 174, 183, 282-283, 294-295, 319, 396
<223> unknown base

<400> 311
agaggcctct ctggaagttg tcccgggtgt tcgccgngg agcccgggtc 50
gagaggacna ggtgccgctg cctggagaat cctccgctgc cgtcggctcc 100
cggagcccag ccctttccta acccaaccca acctagccn gtcccagccg 150
ccagcgctg tccctgtcnc gganccagc gtnaccatgc atcctgccgt 200
cttcctatcc ttacccgacc tcagatgctc ccttctgctc ctggtaactt 250
gggtttttac tcctgtaaca actgaaataa cnngtcttga tacnnagaat 300
atagatgaaa ttttaaacna tgctgatgtg gcttttagtca atttttatgc 350
tgactggtgt cgtttcagtc agatgtggca tccaattttt gaggangctt 400
ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgtttgcc 450
agagttgatt gtgatcagca ctctgacata gccagagat acaggataag 500
caaataccca accctcaaat tgtttcgtaa tgggatgatg atgaagagag 550
aatacagggg tcagcgatca gtgaaagcat tggcagatta catcaggc 598

<210> 312
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 312
tgagaggcct ctctggaagt tg 22

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 318

ctgtatctct gggctatgtc agag 24

<210> 319

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 319

ctacatataa tggcacatgt cagcc 25

<210> 320

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 320

cgtcttccta tccttaccog acctcagatg ctcccttctg ctctg 46

<210> 321

<211> 1333

<212> DNA

<213> Homo sapiens

<400> 321

gcccacgcgt ccgatggcgt tcacgttcgc ggccttctgc tacatgctgg 50

cgctgctgct cactgccgcg ctcatcttct tcgccatttg gcacattata 100

gcatttgatg agctgaagac tgattacaag aatcctatag accagtgtaa 150

tacctgaat ccccttgtag tccagagta cctcatccac gctttcttct 200

gtgtcatgtt tctttgtgca gcagagtggc ttacactggg tctcaatatg 250

cccctcttgg catatcatat ttggagggtat atgagtagac cagtgatgag 300

tggcccagga ctctatgacc ctacaaccat catgaatgca gatattctag 350

catattgtca gaaggaagga tgggtgcaaat tagcttttta tcttctagca 400

tttttttact acctatatgg catgatctat gttttggtga gctcttagaa 450

caacacacag aagaattggc ccagttaagt gcatgcaaaa agccaccaa 500

tgaagggatt ctatccagca agatcctgtc caagagtagc ctgtggaatc 550

Ile	Met	Asn	Ala	Asp	Ile	Leu	Ala	Tyr	Cys	Gln	Lys	Glu	Gly	Trp
				110					115					120
Cys	Lys	Leu	Ala	Phe	Tyr	Leu	Leu	Ala	Phe	Phe	Tyr	Tyr	Leu	Tyr
				125					130					135
Gly	Met	Ile	Tyr	Val	Leu	Val	Ser	Ser						
				140										

<210> 323
 <211> 477
 <212> DNA
 <213> Homo sapiens

<400> 323
 attatagcat ttgatgagct gaagactgat tacaagatcc tatagaccag 50
 tgtaataccc tgaatcccct tgtactccca gagtacctca tccacgcttt 100
 cttctgtgtc atgtttcttt gtgcagcaga gtggcttaca ctgggtctca 150
 atatgcccct cttggcatat catatttgga ggtatatgag tagaccagtg 200
 atgagtggcc caggactcta tgaccctaca accatcatga atgcagatat 250
 tctagcatat tgtcagaagg aaggatgggtg caaattagct ttttatcttc 300
 tagcattttt ttactaccta tatggcatga tctatgtttt ggtgagctct 350
 tagaacaaca cacagaagaa ttggtccagt taagtgcagc caaaaagcca 400
 ccaaatgaag ggattctatc cagcaagatc ctgtccaaga gtagcctgtg 450
 gaatctgatc agttacttta aaaaatg 477

<210> 324
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 324
 tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 325
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 325
 caggaaacag ctatgaccac ctgcacacct gcaaatccat t 41

<210> 326

aactctggtg aggtcattct ggagtgcacat gatggactcc gcacagagct 550
tcataacctc ttcattggact ttttatcttc aagccgatga cggaaaaata 600
gttatattcc agtctaagcc agaaatccag tacgcaccac atttgagca 650
ggagcctaca aatttgagag aatcatctct aagcaaatg tcctatctgc 700
aaatgagaaa ttcacaagcg cacaggaatt ttcttgaaga tggagaaagt 750
gatggctttt taagatgcct ctctcttaac tctgggtgga ttttaactac 800
aactcttgct ctctcgggtga tggatttgct ttggatttgt tgtgcaactg 850
ttgctacagc tgtggagcag tatgttcctt ctgagaagct gagtatctat 900
ggtgacttgg agtttatgaa tgaacaaaag ctaaacagat atccagcttc 950
ttctcttggtg gttgttagat ctaaaactga agatcatgaa gaagcagggc 1000
ctctacctac aaaagtgaat cttgctcatt ctgaaattta agcatttttc 1050
ttttaaaaga caagtgtaat agacatctaa aattccactc ctcatagagc 1100
ttttaaaatg gtttcattgg atataggcct taagaaatca ctataaaatg 1150
caaataaagt tactcaaatc tgtg 1174

<210> 330

<211> 323

<212> PRT

<213> Homo sapiens

<400> 330

Met	Ala	Ala	Pro	Lys	Gly	Ser	Leu	Trp	Val	Arg	Thr	Gln	Leu	Gly
1				5					10					15
Leu	Pro	Pro	Leu	Leu	Leu	Leu	Thr	Met	Ala	Leu	Ala	Gly	Gly	Ser
			20						25					30
Gly	Thr	Ala	Ser	Ala	Glu	Ala	Phe	Asp	Ser	Val	Leu	Gly	Asp	Thr
			35						40					45
Ala	Ser	Cys	His	Arg	Ala	Cys	Gln	Leu	Thr	Tyr	Pro	Leu	His	Thr
			50						55					60
Tyr	Pro	Lys	Glu	Glu	Glu	Leu	Tyr	Ala	Cys	Gln	Arg	Gly	Cys	Arg
			65						70					75
Leu	Phe	Ser	Ile	Cys	Gln	Phe	Val	Asp	Asp	Gly	Ile	Asp	Leu	Asn
			80						85					90
Arg	Thr	Lys	Leu	Glu	Cys	Glu	Ser	Ala	Cys	Thr	Glu	Ala	Tyr	Ser
			95						100					105
Gln	Ser	Asp	Glu	Gln	Tyr	Ala	Cys	His	Leu	Gly	Cys	Gln	Asn	Gln
			110						115					120

Leu	Pro	Phe	Ala	Glu	Leu	Arg	Gln	Glu	Gln	Leu	Met	Ser	Leu	Met	
				125					130					135	
Pro	Lys	Met	His	Leu	Leu	Phe	Pro	Leu	Thr	Leu	Val	Arg	Ser	Phe	
				140					145					150	
Trp	Ser	Asp	Met	Met	Asp	Ser	Ala	Gln	Ser	Phe	Ile	Thr	Ser	Ser	
				155					160					165	
Trp	Thr	Phe	Tyr	Leu	Gln	Ala	Asp	Asp	Gly	Lys	Ile	Val	Ile	Phe	
				170					175					180	
Gln	Ser	Lys	Pro	Glu	Ile	Gln	Tyr	Ala	Pro	His	Leu	Glu	Gln	Glu	
				185					190					195	
Pro	Thr	Asn	Leu	Arg	Glu	Ser	Ser	Leu	Ser	Lys	Met	Ser	Tyr	Leu	
				200					205					210	
Gln	Met	Arg	Asn	Ser	Gln	Ala	His	Arg	Asn	Phe	Leu	Glu	Asp	Gly	
				215					220					225	
Glu	Ser	Asp	Gly	Phe	Leu	Arg	Cys	Leu	Ser	Leu	Asn	Ser	Gly	Trp	
				230					235					240	
Ile	Leu	Thr	Thr	Thr	Leu	Val	Leu	Ser	Val	Met	Val	Leu	Leu	Trp	
				245					250					255	
Ile	Cys	Cys	Ala	Thr	Val	Ala	Thr	Ala	Val	Glu	Gln	Tyr	Val	Pro	
				260					265					270	
Ser	Glu	Lys	Leu	Ser	Ile	Tyr	Gly	Asp	Leu	Glu	Phe	Met	Asn	Glu	
				275					280					285	
Gln	Lys	Leu	Asn	Arg	Tyr	Pro	Ala	Ser	Ser	Leu	Val	Val	Val	Arg	
				290					295					300	
Ser	Lys	Thr	Glu	Asp	His	Glu	Glu	Ala	Gly	Pro	Leu	Pro	Thr	Lys	
				305					310					315	
Val	Asn	Leu	Ala	His	Ser	Glu	Ile								
				320											

<210> 331
 <211> 350
 <212> DNA
 <213> Homo sapiens

<400> 331
 ttgggtgata cggcgtcttg ccaccgggcc tgtcagttga cctaccctt 50
 gcacacctac cctaaggaag aggagttgta cgcattgtcag agaggttgca 100
 ggctgttttc aatttgtcag tttgtggatg atggaattga cttaaactga 150
 actaaattgg aatgtgaatc tgcattgtaca gaagcatatt cccaatctga 200
 tgagcaatat gcttgccatc ttggttgcca gaatcagctg ccattcgctg 250

aactgagaca agaacaactt atgtccctga tgccaaaaat gcacctactc 300
 tttcctctaa ctctgggtgag gtcattcttg agtgacatga tggactccgc 350

<210> 332
 <211> 562
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 47
 <223> unknown base

<400> 332
 cacactggcc ggatctttta gagtcctttg accttgacca agggtcngga 50
 aaacagcaac aagctgagct gctgtgacag agggaacaag atggcggcgc 100
 cgaagggagc ctttgggtga ggacccaact ggggctcccg ccgctgctgc 150
 tgctgaccat ggccttggcc ggaggttcgg ggaccgcttc ggctgaagca 200
 tttgactcgg tcttgggtga tacggcgtct tgccaccggg cctgtcagtt 250
 gacctacccc ttgcacacct accctaagga agaggagttg tacgcatgtc 300
 agagaggttg caggctgttt tcaatttgtc agtttgtgga tgatggaatt 350
 gacttaaadc gaactaaatt ggaatgtgaa tctgcatgta cagaagcata 400
 ttcccaatct gatgagcaat atgcttgcca tcttggttgc cagaatcagc 450
 tgccattcgc tgaactgaga caagaacaac ttatgtccct gatgccaaaa 500
 atgcacctac tctttcctct aactctggtg aggtcattct ggagtgcacat 550
 gatggactcc gc 562

<210> 333
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 333
 acaagctgag ctgctgtgac ag 22

<210> 334
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 334
tgattctggc aaccaagatg gc 22

<210> 335
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 335
atggccttgg ccggagggttc ggggaccgct tcggctgaag 40

<210> 336
<211> 1885
<212> DNA
<213> Homo sapiens

<400> 336
gcgagggtggc gatcgctgag aggcaggagg gccgaggcgg gcctgggagg 50
cggcccgagg gtggggcgcc gctggggcgg gcccgcacgg gcttcatctg 100
agggcgcacg gcccgcgacc gagcgtgcgg actggcctcc caagcgtggg 150
gcgacaagct gccggagctg caatgggccc cggctgggga ttcttgtttg 200
gcctcctggg cgccgtgttg ctgctcagct cgggccacgg agaggagcag 250
cccccggaga cagcggcaca gaggtgcttc tgccaggtta gtggttactt 300
ggatgattgt acctgtgatg ttgaaacat tgatagattt aataactaca 350
ggcttttccc aagactacaa aaacttcttg aaagtgacta ctttaggtat 400
tacaaggtaa acctgaagag gccgtgtcct ttctggaatg acatcagcca 450
gtgtggaaga agggactgtg ctgtcaaacc atgtcaatct gatgaagttc 500
ctgatggaat taaatctgcg agctacaagt attctgaaga agccaataat 550
ctcattgaag aatgtgaaca agctgaacga cttggagcag tggatgaatc 600
tctgagtgag gaaacacaga aggctgttct tcagtggacc aagcatgatg 650
attcttcaga taacttctgt gaagctgatg acattcagtc ccctgaagct 700
gaatatgtag atttgcttct taatcctgag cgctacactg gttacaaggg 750
accagatgct tggaaaatat ggaatgtcat ctacgaagaa aactgtttta 800
agccacagac aattaaaaga cttttaaatc ctttggcttc tgggtcaaggg 850
acaagtgaag agaacacttt ttacagttgg ctagaaggtc tctgtgtaga 900
aaaagagca ttctacagac ttatatctgg cctacatgca agcattaatg 950

tgcatttgag tgcaagatat cttttacaag agacctgggt agaaaagaaa 1000
 tggggacaca acattacaga atttcaacag cgatttgatg gaattttgac 1050
 tgaaggagaa ggtccaagaa ggcttaagaa cttgtatttt ctctacttaa 1100
 tagaactaag ggctttatcc aaagtgttac cattcttcga gcgcccagat 1150
 tttcaactct ttactggaaa taaaattcag gatgaggaaa acaaaatggt 1200
 acttctggaa atacttcatg aaatcaagtc atttcctttg cattttgatg 1250
 agaattcatt ttttgctggg gataaaaaag aagcacacaa actaaaggag 1300
 gactttcgac tgcattttag aaatatattca agaattatgg attgtgttgg 1350
 ttgttttaaa tgtcgtctgt ggggaaagct tcagactcag ggtttgggca 1400
 ctgctctgaa gatcttattt tctgagaaat tgatagcaaa tatgccagaa 1450
 agtggaccta gttatgaatt ccatctaacc agacaagaaa tagtatcatt 1500
 attcaacgca tttggaagaa tttctacaag tgtgaaagaa ttagaaaact 1550
 tcaggaaactt gttacagaat attcattaaa gaaaacaagc tgatatgtgc 1600
 ctgtttctgg acaatggagg cgaaagagtg gaatttcatt caaaggcata 1650
 atagcaatga cagtcttaag ccaaacattt tatataaagt tgcttttgta 1700
 aaggagaatt atattgtttt aagtaaacac atttttataaa attgtgttaa 1750
 gtctatgtat aatactactg tgagtaaaag taatacttta ataatgtggt 1800
 acaaatttta aagtttaata ttgaataaaa ggaggattat caaattataaa 1850
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1885

<210> 337

<211> 468

<212> PRT

<213> Homo sapiens

<400> 337

Met	Gly	Arg	Gly	Trp	Gly	Phe	Leu	Phe	Gly	Leu	Leu	Gly	Ala	Val
1				5					10					15
Trp	Leu	Leu	Ser	Ser	Gly	His	Gly	Glu	Glu	Gln	Pro	Pro	Glu	Thr
			20					25						30
Ala	Ala	Gln	Arg	Cys	Phe	Cys	Gln	Val	Ser	Gly	Tyr	Leu	Asp	Asp
			35					40						45
Cys	Thr	Cys	Asp	Val	Glu	Thr	Ile	Asp	Arg	Phe	Asn	Asn	Tyr	Arg
			50					55						60
Leu	Phe	Pro	Arg	Leu	Gln	Lys	Leu	Leu	Glu	Ser	Asp	Tyr	Phe	Arg
			65					70						75

Tyr	Tyr	Lys	Val	Asn	Leu	Lys	Arg	Pro	Cys	Pro	Phe	Trp	Asn	Asp	
				80					85					90	
Ile	Ser	Gln	Cys	Gly	Arg	Arg	Asp	Cys	Ala	Val	Lys	Pro	Cys	Gln	
				95					100					105	
Ser	Asp	Glu	Val	Pro	Asp	Gly	Ile	Lys	Ser	Ala	Ser	Tyr	Lys	Tyr	
				110					115					120	
Ser	Glu	Glu	Ala	Asn	Asn	Leu	Ile	Glu	Glu	Cys	Glu	Gln	Ala	Glu	
				125					130					135	
Arg	Leu	Gly	Ala	Val	Asp	Glu	Ser	Leu	Ser	Glu	Glu	Thr	Gln	Lys	
				140					145					150	
Ala	Val	Leu	Gln	Trp	Thr	Lys	His	Asp	Asp	Ser	Ser	Asp	Asn	Phe	
				155					160					165	
Cys	Glu	Ala	Asp	Asp	Ile	Gln	Ser	Pro	Glu	Ala	Glu	Tyr	Val	Asp	
				170					175					180	
Leu	Leu	Leu	Asn	Pro	Glu	Arg	Tyr	Thr	Gly	Tyr	Lys	Gly	Pro	Asp	
				185					190					195	
Ala	Trp	Lys	Ile	Trp	Asn	Val	Ile	Tyr	Glu	Glu	Asn	Cys	Phe	Lys	
				200					205					210	
Pro	Gln	Thr	Ile	Lys	Arg	Pro	Leu	Asn	Pro	Leu	Ala	Ser	Gly	Gln	
				215					220					225	
Gly	Thr	Ser	Glu	Glu	Asn	Thr	Phe	Tyr	Ser	Trp	Leu	Glu	Gly	Leu	
				230					235					240	
Cys	Val	Glu	Lys	Arg	Ala	Phe	Tyr	Arg	Leu	Ile	Ser	Gly	Leu	His	
				245					250					255	
Ala	Ser	Ile	Asn	Val	His	Leu	Ser	Ala	Arg	Tyr	Leu	Leu	Gln	Glu	
				260					265					270	
Thr	Trp	Leu	Glu	Lys	Lys	Trp	Gly	His	Asn	Ile	Thr	Glu	Phe	Gln	
				275					280					285	
Gln	Arg	Phe	Asp	Gly	Ile	Leu	Thr	Glu	Gly	Glu	Gly	Pro	Arg	Arg	
				290					295					300	
Leu	Lys	Asn	Leu	Tyr	Phe	Leu	Tyr	Leu	Ile	Glu	Leu	Arg	Ala	Leu	
				305					310					315	
Ser	Lys	Val	Leu	Pro	Phe	Phe	Glu	Arg	Pro	Asp	Phe	Gln	Leu	Phe	
				320					325					330	
Thr	Gly	Asn	Lys	Ile	Gln	Asp	Glu	Glu	Asn	Lys	Met	Leu	Leu	Leu	
				335					340					345	
Glu	Ile	Leu	His	Glu	Ile	Lys	Ser	Phe	Pro	Leu	His	Phe	Asp	Glu	
				350					355					360	
Asn	Ser	Phe	Phe	Ala	Gly	Asp	Lys	Lys	Glu	Ala	His	Lys	Leu	Lys	

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 339
 aagctgccgg agctgcaatg 20

 <210> 340
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 340
 ttgcttctta atcctgagcg c 21

 <210> 341
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 341
 aaaggaggac tttcgactgc 20

 <210> 342
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 342
 agagattcat ccactgctcc aagtcg 26

 <210> 343
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 343
 tgtccagaaa caggcacata tcagc 25

 <210> 344
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 344

agacagcggc acagaggtgc ttctgccagg ttagtggtta cttggatgat 50

<210> 345

<211> 1486

<212> DNA

<213> Homo sapiens

<400> 345

cggacgcgtg ggcgacgcg tggcgacgcg cgtgggttgg gagggggcag 50
gatgggaggg aaagtgaaga aaacagaaaa ggagagggac agaggccaga 100
ggactttctca tactggacag aaaccgatca ggcatggaac tccccttcgt 150
cactcacctg ttcttgcccc tgggtgtcct gacaggtctc tgctccccct 200
ttaacctgga tgaacatcac ccacgcctat tcccagggcc accagaagct 250
gaatttggat acagtgtctt acaacatgtt ggggggtggac agcgatggat 300
gctggtgggc gccccctggg atgggccttc aggcgaccgg aggggggacg 350
tttatcgctg ccctgtaggg ggggcccaca atgccccatg tgccaagggc 400
cacttaggtg actaccaact gggaaattca tctcatcctg ctgtgaatat 450
gcacctgggg atgtctctgt tagagacaga tggatgatgg ggattcatgg 500
tgagctaagg agaggggtgt ggcagtgtct ctgaagggtcc ataaaagaaa 550
aaagagaagt gtggttaaggg aaaatggtct gtgtggaggg gtcaaggagt 600
taaaaaccct agaaagcaaa aggtaggtaa tgtcaggag tagtcttcat 650
gcctccttca actgggagca tgttctgagg gtgccctccc aagcctggga 700
gtaactattt ccccatccc caggcctgtg cccctctctg gtctcgtgct 750
tgtggcagct ctgtcttcag ttctgggata tgtgccctgt tggatgcttc 800
attccagcct cagggaagcc tggcaccac tgcccaacgt gagccagagg 850
aaggctgagt acttggttcc cagaaggaga tactgggtgg gaaaaagatg 900
gggcaaagcg gtatgatgcc tggcaaaggg cctgcatggc tatcctcatt 950
gctacctaat gtgcttgcaa aagctccatg tttcctaaca gattcagact 1000
cctggccagg tgtggtggcc cacacctgta attctagcac tttgggaggc 1050
caaggtgggc agatcacttg aggtcaggag ttcaagacca gcctggccaa 1100
catggtgaaa ctccatctct actaaaaaaa aaaaaataca aaaattagct 1150

cacagttccc caccatcaact cntcccatte cttccaactt tatttttagc 50
 ttgccattgg gagggggcag gatgggaggg aaagtgaaga aaacagaaaa 100
 ggagaggggac agaggccaga ggactttctca tactggacag aaaccgatca 150
 ggcatggaac tccccttcgt cactcacctg ttcttgcccc tgggtgttct 200
 gacaggtctc tgctccccct ttaacctgga tgaacatcac ccacgcctat 250
 tcccagggcc accagaagct gaatttggat acagtgtott acaacatgtt 300
 gggggtggac agcgatggat gctggtgggc gccccctggg atgggccttc 350
 aggcgaccgg aggggggacg tttatcgctg ccctgtaggg gggggccaca 400
 atgccccatg tgccaagggc cacttaggtg actaccaact gggaaattca 450
 tctcatcctg ctgtgaatat gcacctgggg atgtctctgt tagagacaga 500
 tggatgatgg 509

<210> 348
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 348
 agggacagag gccagaggac ttc 23

<210> 349
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 349
 caggtgcata ttcacagcag gatg 24

<210> 350
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 350
 ggaactcccc ttctgtcactc acctgttctt gcccctgggtg ttcct 45

<210> 351
 <211> 2056
 <212> DNA

<213> Homo sapiens

<400> 351

```

aaagttacat tttctctgga actctcctag gccactccct gctgatgcaa 50
catctggggt tgggcagaaa ggaggggtgct tcggagcccg ccctttctga 100
gcttcctggg ccggctctag aacaattcag gcttcgctgc gactcagacc 150
tcagctccaa catatgcatt ctgaagaaag atggctgaga tggacagaat 200
gctttatttt ggaaagaaac aatgttctag gtcaaactga gtctaccaa 250
tgcagacttt cacaatgggt ctagaagaaa tctggacaag tcttttcatg 300
tggtttttct acgcattgat tccatgtttg ctcacagatg aagtggccat 350
tctgcctgcc cctcagaacc tctctgtact ctcaaccaac atgaagcatc 400
tcttgatgtg gagcccagtg atcgcgcctg gagaaacagt gtactattct 450
gtcgaatacc agggggagta cgagagcctg tacacgagcc acatctggat 500
ccccagcagc tgggtgctac tcaactgaagg tcctgagtgt gatgtcactg 550
atgacatcac ggccactgtg ccatacaacc ttcgtgtcag ggccacattg 600
ggctcacaga cctcagcctg gagcatcctg aagcatccct ttaatagaaa 650
ctcaaccatc cttaccogac ctgggatgga gatcaccaa gatggcttcc 700
acctggttat tgagctggag gacctggggc ccagtttga gttccttggtg 750
gcctactgga ggagggagcc tggtgccgag gaacatgtca aaatggtgag 800
gagtgggggt attccagtgc acctagaaac catggagcca ggggctgcat 850
actgtgtgaa ggcccagaca ttcgtgaagg ccattgggag gtacagcgcc 900
ttcagccaga cagaatgtgt ggaggtgcaa ggagaggcca ttcccctggt 950
actggccctg tttgcctttg ttggcttcat gctgatcctt gtggtcgtgc 1000
cactgttcgt ctggaaaatg ggccggctgc tccagtactc ctgttgcccc 1050
gtggtggtcc tcccagacac cttgaaaata accaattcac cccagaagtt 1100
aatcagctgc agaagggagg aggtggatgc ctgtgccacg gctgtgatgt 1150
ctcctgagga actcctcagg gcctggatct cataggtttg cggaagggcc 1200
caggtgaagc cgagaacctg gtctgcatga catggaaacc atgaggggac 1250
aagttgtgtt tctgttttcc gccacggaca agggatgaga gaagtaggaa 1300
gagcctgttg tctacaagtc tagaagcaac catcagaggc aggttggttt 1350
gtctaacaga aactgactg aggccttaggg gatgtgacct ctagactggg 1400

```

ggctgccact tgctggctga gcaaccctgg gaaaagtgac ttcattccctt 1450
 cggtcctaag ttttctcatc tgtaatgggg gaattaccta cacacctgct 1500
 aaacacacac acacagagtc tctctctata tatacacacg tacacataaa 1550
 tacaccagc acttgcaagg ctagagggaa actggtgaca ctctacagtc 1600
 tgactgattc agtgtttctg gagagcagga cataaatgta tgatgagaat 1650
 gatcaaggac tctacacact ggggtggcttg gagagcccac tttcccagaa 1700
 taatccttga gagaaaagga atcatgggag caatggtgtt gagttcactt 1750
 caagcccaat gccggtgcag aggggaatgg cttagcgagc tctacagtag 1800
 gtgacctgga ggaaggtcac agccacactg aaaatgggat gtgcatgaac 1850
 acggaggatc catgaactac tgtaaagtgt tgacagtgtg tgcacactgc 1900
 agacagcagg tgaaatgtat gtgtgcaatg cgacgagaat gcagaagtca 1950
 gtaacatgtg catgtttgtt gtgctccttt tttctgttgg taaagtacag 2000
 aattcagcaa ataaaaaggg ccaccctggc caaaagcggg aaaaaaaaaa 2050
 aaaaaa 2056

<210> 352

<211> 311

<212> PRT

<213> Homo sapiens

<400> 352

Met	Gln	Thr	Phe	Thr	Met	Val	Leu	Glu	Glu	Ile	Trp	Thr	Ser	Leu
1				5					10					15
Phe	Met	Trp	Phe	Phe	Tyr	Ala	Leu	Ile	Pro	Cys	Leu	Leu	Thr	Asp
			20						25					30
Glu	Val	Ala	Ile	Leu	Pro	Ala	Pro	Gln	Asn	Leu	Ser	Val	Leu	Ser
			35						40					45
Thr	Asn	Met	Lys	His	Leu	Leu	Met	Trp	Ser	Pro	Val	Ile	Ala	Pro
			50						55					60
Gly	Glu	Thr	Val	Tyr	Tyr	Ser	Val	Glu	Tyr	Gln	Gly	Glu	Tyr	Glu
			65						70					75
Ser	Leu	Tyr	Thr	Ser	His	Ile	Trp	Ile	Pro	Ser	Ser	Trp	Cys	Ser
			80						85					90
Leu	Thr	Glu	Gly	Pro	Glu	Cys	Asp	Val	Thr	Asp	Asp	Ile	Thr	Ala
			95						100					105
Thr	Val	Pro	Tyr	Asn	Leu	Arg	Val	Arg	Ala	Thr	Leu	Gly	Ser	Gln
			110						115					120

Thr	Ser	Ala	Trp	Ser	Ile	Leu	Lys	His	Pro	Phe	Asn	Arg	Asn	Ser
				125					130					135
Thr	Ile	Leu	Thr	Arg	Pro	Gly	Met	Glu	Ile	Thr	Lys	Asp	Gly	Phe
				140					145					150
His	Leu	Val	Ile	Glu	Leu	Glu	Asp	Leu	Gly	Pro	Gln	Phe	Glu	Phe
				155					160					165
Leu	Val	Ala	Tyr	Trp	Arg	Arg	Glu	Pro	Gly	Ala	Glu	Glu	His	Val
				170					175					180
Lys	Met	Val	Arg	Ser	Gly	Gly	Ile	Pro	Val	His	Leu	Glu	Thr	Met
				185					190					195
Glu	Pro	Gly	Ala	Ala	Tyr	Cys	Val	Lys	Ala	Gln	Thr	Phe	Val	Lys
				200					205					210
Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr	Glu	Cys	Val	Glu
				215					220					225
Val	Gln	Gly	Glu	Ala	Ile	Pro	Leu	Val	Leu	Ala	Leu	Phe	Ala	Phe
				230					235					240
Val	Gly	Phe	Met	Leu	Ile	Leu	Val	Val	Val	Pro	Leu	Phe	Val	Trp
				245					250					255
Lys	Met	Gly	Arg	Leu	Leu	Gln	Tyr	Ser	Cys	Cys	Pro	Val	Val	Val
				260					265					270
Leu	Pro	Asp	Thr	Leu	Lys	Ile	Thr	Asn	Ser	Pro	Gln	Lys	Leu	Ile
				275					280					285
Ser	Cys	Arg	Arg	Glu	Glu	Val	Asp	Ala	Cys	Ala	Thr	Ala	Val	Met
				290					295					300
Ser	Pro	Glu	Glu	Leu	Leu	Arg	Ala	Trp	Ile	Ser				
				305					310					

<210> 353
 <211> 864
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 654, 711, 748, 827
 <223> unknown base

<400> 353
 tcctgctgat gcacatctgg gtttggcaaa aggaggttgc ttcgagccgc 50
 cctttctagc ttcttgcccg gctctagaac aattcaggct tcgctgcgac 100
 tagacctcag ctccaacata tgcattctga agaaagatgg ctgagatgac 150
 agaatgcttt attttggaaa gaaacaatgt tctaggtcaa actgagtcta 200

ccaaatgcag actttcacaa tggttctaga agaaatctgg acaagtcttt 250
 tcatgtgggtt tttctacgca ttgattccat gtttgctcac agatgaagtg 300
 gccattctgc ctgcccctca gaacctctct gtactctcaa ccaacatgaa 350
 gcatctcttg atgtggagcc cagtgatcgc gcctggagaa acagtgtact 400
 attctgtcga ataccagggg gagtacgaga gcctgtacac gagccacatc 450
 tggatcccca gcagctggtg ctactcact gaaggtcctg agtgtgatgt 500
 cactgatgac atcacggcca ctgtgccata caacctttgt gtcagggcca 550
 cattgggctc acagacctca gcctggagca tcctgaagca tccctttaat 600
 agaaactcaa ccattccttac ccgacctggg atggagatca ccaaagatgg 650
 cttncacctg gttattgagc tggaggacct ggggccccag tttgagttcc 700
 ttgtggccta ntggaggagg ggcgaacccc ttgcggcgca aggggttngc 750
 gaaccccttg cggccgctgg ggtatctctc gagaaaagag aggcccaata 800
 tgaccacat actcaatatg gacgaantgc tattgtccac ctgtttgagt 850
 ggcgctgggt tgat 864

- <210> 354
- <211> 23
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Synthetic oligonucleotide probe
- <400> 354
- aggcttcgct gcgactagac ctc 23
- <210> 355
- <211> 24
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Synthetic oligonucleotide probe
- <400> 355
- ccaggtcggg taaggatggt tgag 24
- <210> 356
- <211> 50
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Synthetic oligonucleotide probe

<400> 356
 tttctacgca ttgattccat gtttgctcac agatgaagtg gccattctgc 50

<210> 357
 <211> 1670
 <212> DNA
 <213> Homo sapiens

<400> 357
 cccacgcgtc cgcccacgcg tccgagggac aagagagaag agagactgaa 50
 acaggagaaa gaggcaggag aggaggaggt ggggagagca cgaagctgga 100
 ggccgacact gagggagggc gggaggaggt gaagaaggag agaggggaga 150
 agaggcagga gctggaaagg agagagggag gaggaggagg agatgcggga 200
 tggagacctg gagttagggt gcttgggaga gcttaatgaa aagagaacgg 250
 agaggaggtg tgggttagga accaagaggt agccctgttg gcagcagaag 300
 gctgagagga gtaggaagat caggagctag agggagactg gagggttccg 350
 ggaaaagagc agaggaaaga ggaaagacac agagagacgg gagagagaag 400
 aagagtgggt ttgaagggcg gatctcagtc cctggctgct ttggcatttg 450
 gggaaactggg actccctgtg gggaggagag gaaagctgga agtcctggag 500
 ggacagggtc ccagaaggag gggacagagg agctgagaga ggggggcagg 550
 gcgttgggca ggggtccctc ggaggcctcc tggggatggg ggctgcagct 600
 cgtctgagcg cccctcgagc gctggtactc tgggctgcac tgggggcagc 650
 agctcacatc ggaccagcac ctgacccoga ggactggttg agctacaagg 700
 ataatctcca gggaaacttc gtgccagggc ctcccttctg gggcctggtg 750
 aatgcagcgt ggagtctgtg tgctgtgggg aagcggcaga gccccgtgga 800
 tgtggagctg aagaggggtc tttatgacct ctttctgccc ccattaaggc 850
 tcagcaactg aggagagaag ctccggggaa ccttgtacaa caccggccga 900
 catgtctcct tctgcctgc accccgacct gtggtcaatg tgtctggagg 950
 tccccctcct tacagccacc gactcagtga actgcggctg ctgtttggag 1000
 ctcgcgacgg agccggctcg gaacatcaga tcaaccacca gggcttctct 1050
 gctgaggtgc agctcattca cttcaaccag gaactctacg ggaatttcag 1100
 cgctgcctcc cgcggcccca atggcctggc cattctcagc ctctttgtca 1150
 acgttgccag tacctctaac ccattcctca gtcgcctcct taaccgagc 1200
 accatcactc gcattctcta caagaatgat gcctactttc ttcaagacct 1250

	170		175		180
Leu Ala Ile Leu Ser Leu Phe Val Asn Val Ala Ser Thr Ser Asn					
	185		190		195
Pro Phe Leu Ser Arg Leu Leu Asn Arg Asp Thr Ile Thr Arg Ile					
	200		205		210
Ser Tyr Lys Asn Asp Ala Tyr Phe Leu Gln Asp Leu Ser Leu Glu					
	215		220		225
Leu Leu Phe Pro Glu Ser Phe Gly Phe Ile Thr Tyr Gln Gly Ser					
	230		235		240
Leu Ser Thr Pro Pro Cys Ser Glu Thr Val Thr Trp Ile Leu Ile					
	245		250		255
Asp Arg Ala Leu Asn Ile Thr Ser Leu Gln Met His Ser Leu Arg					
	260		265		270
Leu Leu Ser Gln Asn Pro Pro Ser Gln Ile Phe Gln Ser Leu Ser					
	275		280		285
Gly Asn Ser Arg Pro Leu Gln Pro Leu Ala His Arg Ala Leu Arg					
	290		295		300
Gly Asn Arg Asp Pro Arg His Pro Glu Arg Arg Cys Arg Gly Pro					
	305		310		315
Asn Tyr Arg Leu His Val Asp Gly Val Pro His Gly Arg					
	320		325		

<210> 359

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 359

tctgctgagg tgcagctcat tcac 24

<210> 360

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 360

gaggctctgg aagatctgag atgg 24

<210> 361

<211> 50

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 361
gcctctttgt caacgttgcc agtacctota acccattcct cagtcgcctc 50

<210> 362
<211> 3038
<212> DNA

<213> Homo sapiens

<400> 362
ggcgcctggt tctgcgcgta ctggctgtac ggagcaggag caagaggtcg 50
ccgccagcct ccgccgccga gctcgttctg tgtccccgcc cctcgtcctc 100
gcagctactg ctcagaaacg ctggggcgcc caccctggca gactaacgaa 150
gcagctccct tcccaccca actgcaggtc taattttgga cgctttgcct 200
gccatttctt ccaggttgag ggagccgcag aggcggaggc tcgcgtattc 250
ctgcagtcag caccacgctc gcccccgac gctcgttgct caggcccttc 300
gcgagcgggg ctctccgtct gcggtccctt gtgaaggctc tgggcggctg 350
cagaggccgg ccgtccggtt tggctcacct ctcccaggaa acttcacact 400
ggagagccaa aaggagtgga agagcctgtc ttggagattt tcctggggaa 450
atcctgaggt cattcattat gaagtgtacc gcgcgggagt ggctcagagt 500
aaccacagtg ctgttcatgg ctagagcaat tccagccatg gtggttccca 550
atgccacttt attggagaaa ctttttgaaa aatacatgga tgaggatggt 600
gagtgggtgga tagccaaaca acgagggaaa agggccatca cagacaatga 650
catgcagagt attttggacc ttcataataa attacgaagt cagggtgtatc 700
caacagcctc taatatggag tatatgacat gggatgtaga gctggaaaga 750
tctgcagaat cctgggctga aagttgcttg tgggaacatg gacctgcaag 800
cttgcttcca tcaattggac agaatttggg agcacactgg ggaagatata 850
ggccccgac gtttcatgta caatcgtggt atgatgaagt gaaagacttt 900
agctacccat atgaacatga atgcaaccca tattgtccat tcaggtgttc 950
tggccctgta tgtacacatt atacacaggc cgtgtgggca actagtaaca 1000
gaatcggttg tgccattaat ttgtgtcata acatgaacat ctgggggcag 1050
atatggccca aagctgtcta cctggtgtgc aattactccc caaagggaaa 1100
ctggtggggc catgccccctt acaaacatgg gcggccctgt tctgcttgcc 1150

cacctagttt tggagggggc tgtagagaaa atctgtgcta caaagaaggg 1200
tcagacaggt attatcccc tcgagaagag gaaacaaatg aaatagaacg 1250
acagcagtca caagtccatg acacccatgt ccggacaaga tcagatgata 1300
gtagcagaaa tgaagtcata agcgcacagc aaatgtccca aattgtttct 1350
tgtgaagtaa gattaagaga tcagtgcaaa ggaacaacct gcaataggta 1400
cgaatgtcct gctggctgtt tggatagtaa agctaaagtt attggcagtg 1450
tacattatga aatgcaatcc agcatctgta gagctgcaat tcattatggg 1500
ataatagaca atgatgggtg ctgggtagat atcactagac aaggaagaaa 1550
gcattatttc atcaagtcca atagaaatgg tattcaaaca attggcaaatt 1600
atcagtctgc taattccttc acagtctcta aagtaacagt tcaggctgtg 1650
acttgtgaaa caactgtgga acagctctgt ccatttcata agcctgcttc 1700
acattgccc aagagtatact gtccctcgtaa ctgtatgcaa gcaaatccac 1750
attatgctcg tgtaattgga actcgagttt attctgatct gtccagtatc 1800
tgcagagcag cagtacatgc tggagtgggt cgaaatcacg gtgggttatgt 1850
tgatgtaatg cctgtggaca aaagaaagac ctacattgct tcttttcaga 1900
atggaatctt ctcaaaaagt ttacagaatc ctccaggagg aaaggcattc 1950
agagtgtttg ctgttgtgtg aaactgaata cttggaagag gaccataaag 2000
actattccaa atgcaatatt tctgaatttt gtataaaact gtaacattac 2050
tgtacagagt acatcaacta ttttcagccc aaaaagggtgc caaatgcata 2100
taaactctga taaacaaagt ctataaaata aaacatggga cattagcttt 2150
gggaaaagta atgaaaatat aatggtttta gaaatcctgt gttaaattatt 2200
gctatatatt cttagcagtt atttctacag ttaattacat agtcatgatt 2250
gttctacgtt tcatatatta tatggtgctt tgtatatgcc actaataaaa 2300
tgaatctaaa cattgaatgt gaatggcoct cagaaaatca tctagtgcatt 2350
ttaaaaaata tcgactctaa aactgaaaga aaccttatca cattttcccc 2400
agttcaatgc tatgccatta ccaactccaa ataattctca ataattttcc 2450
acttaataac tgtaaagttt ttttctgtta atttaggcatt atagaatatt 2500
aaattctgat attgcacttc ttattttata taaaataatc ctttaatatc 2550
caaataaatc tgttaaaatg tttgattcct tgggaatggc cttaaaaaata 2600

aatgtaataa agtcagagtg gtggtatgaa aacattccta gtgatcatgt 2650
 agtaaatgta gggttaagca tggacagcca gagctttcta tgtactgtta 2700
 aaattgaggt cacatatattt cttttgtatc ctggcaaata ctctgcagg 2750
 ccaggaagta taatagcaaa aagttgaaca aagatgaact aatgtattac 2800
 attaccattg ccaactgattt tttttaaatg gtaaatgacc ttgtatataa 2850
 atattgccat atcatgggtac ctataatggg gatatatattg tttctatgaa 2900
 aaatgtattg tgctttgata ctaaaaatct gtaaaatggt agttttggta 2950
 attttttttc tgctgggtgga tttacatatt aaattttttc tgctgggtgga 3000
 taaacattaa aattaatcat gtttcaaaaa aaaaaaaaa 3038

<210> 363

<211> 500

<212> PRT

<213> Homo sapiens

<400> 363

Met	Lys	Cys	Thr	Ala	Arg	Glu	Trp	Leu	Arg	Val	Thr	Thr	Val	Leu
1				5					10					15
Phe	Met	Ala	Arg	Ala	Ile	Pro	Ala	Met	Val	Val	Pro	Asn	Ala	Thr
				20					25					30
Leu	Leu	Glu	Lys	Leu	Leu	Glu	Lys	Tyr	Met	Asp	Glu	Asp	Gly	Glu
				35					40					45
Trp	Trp	Ile	Ala	Lys	Gln	Arg	Gly	Lys	Arg	Ala	Ile	Thr	Asp	Asn
				50					55					60
Asp	Met	Gln	Ser	Ile	Leu	Asp	Leu	His	Asn	Lys	Leu	Arg	Ser	Gln
				65					70					75
Val	Tyr	Pro	Thr	Ala	Ser	Asn	Met	Glu	Tyr	Met	Thr	Trp	Asp	Val
				80					85					90
Glu	Leu	Glu	Arg	Ser	Ala	Glu	Ser	Trp	Ala	Glu	Ser	Cys	Leu	Trp
				95					100					105
Glu	His	Gly	Pro	Ala	Ser	Leu	Leu	Pro	Ser	Ile	Gly	Gln	Asn	Leu
				110					115					120
Gly	Ala	His	Trp	Gly	Arg	Tyr	Arg	Pro	Pro	Thr	Phe	His	Val	Gln
				125					130					135
Ser	Trp	Tyr	Asp	Glu	Val	Lys	Asp	Phe	Ser	Tyr	Pro	Tyr	Glu	His
				140					145					150
Glu	Cys	Asn	Pro	Tyr	Cys	Pro	Phe	Arg	Cys	Ser	Gly	Pro	Val	Cys
				155					160					165
Thr	His	Tyr	Thr	Gln	Val	Val	Trp	Ala	Thr	Ser	Asn	Arg	Ile	Gly

170										175					180				
Cys	Ala	Ile	Asn	Leu	Cys	His	Asn	Met	Asn	Ile	Trp	Gly	Gln	Ile					
				185					190					195					
Trp	Pro	Lys	Ala	Val	Tyr	Leu	Val	Cys	Asn	Tyr	Ser	Pro	Lys	Gly					
				200					205					210					
Asn	Trp	Trp	Gly	His	Ala	Pro	Tyr	Lys	His	Gly	Arg	Pro	Cys	Ser					
				215					220					225					
Ala	Cys	Pro	Pro	Ser	Phe	Gly	Gly	Gly	Cys	Arg	Glu	Asn	Leu	Cys					
				230					235					240					
Tyr	Lys	Glu	Gly	Ser	Asp	Arg	Tyr	Tyr	Pro	Pro	Arg	Glu	Glu	Glu					
				245					250					255					
Thr	Asn	Glu	Ile	Glu	Arg	Gln	Gln	Ser	Gln	Val	His	Asp	Thr	His					
				260					265					270					
Val	Arg	Thr	Arg	Ser	Asp	Asp	Ser	Ser	Arg	Asn	Glu	Val	Ile	Ser					
				275					280					285					
Ala	Gln	Gln	Met	Ser	Gln	Ile	Val	Ser	Cys	Glu	Val	Arg	Leu	Arg					
				290					295					300					
Asp	Gln	Cys	Lys	Gly	Thr	Thr	Cys	Asn	Arg	Tyr	Glu	Cys	Pro	Ala					
				305					310					315					
Gly	Cys	Leu	Asp	Ser	Lys	Ala	Lys	Val	Ile	Gly	Ser	Val	His	Tyr					
				320					325					330					
Glu	Met	Gln	Ser	Ser	Ile	Cys	Arg	Ala	Ala	Ile	His	Tyr	Gly	Ile					
				335					340					345					
Ile	Asp	Asn	Asp	Gly	Gly	Trp	Val	Asp	Ile	Thr	Arg	Gln	Gly	Arg					
				350					355					360					
Lys	His	Tyr	Phe	Ile	Lys	Ser	Asn	Arg	Asn	Gly	Ile	Gln	Thr	Ile					
				365					370					375					
Gly	Lys	Tyr	Gln	Ser	Ala	Asn	Ser	Phe	Thr	Val	Ser	Lys	Val	Thr					
				380					385					390					
Val	Gln	Ala	Val	Thr	Cys	Glu	Thr	Thr	Val	Glu	Gln	Leu	Cys	Pro					
				395					400					405					
Phe	His	Lys	Pro	Ala	Ser	His	Cys	Pro	Arg	Val	Tyr	Cys	Pro	Arg					
				410					415					420					
Asn	Cys	Met	Gln	Ala	Asn	Pro	His	Tyr	Ala	Arg	Val	Ile	Gly	Thr					
				425					430					435					
Arg	Val	Tyr	Ser	Asp	Leu	Ser	Ser	Ile	Cys	Arg	Ala	Ala	Val	His					
				440					445					450					
Ala	Gly	Val	Val	Arg	Asn	His	Gly	Gly	Tyr	Val	Asp	Val	Met	Pro					
				455					460					465					

Val Asp Lys Arg Lys Thr Tyr Ile Ala Ser Phe Gln Asn Gly Ile
470 475 480

Phe Ser Glu Ser Leu Gln Asn Pro Pro Gly Gly Lys Ala Phe Arg
485 490 495

Val Phe Ala Val Val
500

<210> 364
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 364
ggacagaatt tgggagcaca ctgg 24

<210> 365
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 365
ccaagagtat actgtcctcg 20

<210> 366
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 366
agcacagatt ttctctacag ccccc 25

<210> 367
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 367
aaccactcca gcatgtactg ctgc 24

<210> 368
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 368
ccattcaggt gttctggccc tgtatgtaca cattatacac aggtcgtgtg 50

<210> 369
<211> 1685
<212> DNA

<213> Homo sapiens

<400> 369
gcggagacaa gcgcagagcg cagcgcacgg ccacagacag ccctgggcat 50
ccaccgacgg cgcagccgga gccagcagag ccggaaggcg cgccccgggc 100
agagaaagcc gagcagagct ggggtggcgtc tccggggccgc cgctccgacg 150
ggccagcggc ctccccatgt ccctgctccc acgccgcgcc cctccgggtca 200
gcatgaggct cctggcggcc gcgctgctcc tgctgctgct ggcgctgtac 250
accgcgcgtg tggacgggtc caaatgcaag tgctcccgga agggacccaa 300
gatccgctac agcgacgtga agaagctgga aatgaagcca aagtaccgcg 350
actgcgagga gaagatggtt atcatcacca ccaagagcgt gtccaggtag 400
cgaggtcagg agcactgcct gcaccccaag ctgcagagca ccaagcgctt 450
catcaagtgg tacaacgcct ggaacgagaa gcgcagggtc tacgaagaat 500
agggtgaaaa acctcagaag ggaaaactcc aaaccagttg ggagacttgt 550
gcaaaggact ttgcagatta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 600
aaaaaaaaaa aaagcctttc tttctcacag gcataagaca caaattatat 650
attgttatga agcacttttt accaacggtc agttttttaca ttttatagct 700
gcgtgcgaaa ggcttccaga tgggagaccc atctctcttg tgctccagac 750
ttcatcacag gctgcttttt atcaaaaagg ggaaaactca tgcctttcct 800
ttttaaaaaa tgcttttttg tatttgtcca tacgtcacta tacatctgag 850
ctttataagc gcccgggagg aacaatgagc ttggtggaca catttcattg 900
cagtgttgct ccattcctag cttgggaagc ttccgcttag aggtcctggc 950
gcctcggcac agctgccacg ggctctcctg ggcttatggc cggtcacagc 1000
ctcagtgtga ctccacagtg gccctgtag ccgggcaagc aggagcaggt 1050
ctctctgcat ctgttctctg aggaactcaa gtttggttgc cagaaaaatg 1100
tgcttcattc ccccctggtt aattttttaca caccctagga aacatttcca 1150

<223> Synthetic oligonucleotide probe

<400> 371

cagcgccctc cccatgtccc tg 22

<210> 372

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 372

tcccaactgg tttggagttt tccc 24

<210> 373

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 373

ctccggtcag catgaggctc ctggcggccg ctgctcctgc tgctg 45

<210> 374

<211> 3113

<212> DNA

<213> Homo sapiens

<400> 374

gccccaggga ctgctatggc ttcctttggt gttcaccocg gtctgcgtca 50

tggttaaactc caatgtcctc ctgtgggttaa ctgctcttgc catcaagttc 100

accctcattg acagccaagc acagtatcca gttgtcaaca caaattatgg 150

caaaatccgg ggcctaagaa caccgttacc caatgagatc ttgggtccag 200

tggagcagta cttaggggtc ccctatgcct cccccccac tggagagagg 250

cggtttcagc ccccagaacc cccgtcctcc tggactggca tccgaaatac 300

tactcagttt gctgctgtgt gccccagca cctggatgag agatccttac 350

tgcatgacat gctgcccac tggtttaccg ccaatttgga tactttgatg 400

acctatgttc aagatcaaaa tgaagactgc ctttacttaa acatctacgt 450

gccacggaa gatggagcca acacaaagaa aaacgcagat gatataacga 500

gtaatgaccg tgggtgaagac gaagatatcc atgatcagaa cagtaagaag 550

cccgtcatgg tctatatcca tgggggatct tacatggagg gcaccggcaa 600

catgattgac ggcagcattt tggcaagcta cggaaacgtc atcgtgatca 650

ccattaacta ccgtctgga atactagggt ttttaagtac cggtgaccag 700
gcagcaaaaag gcaactatgg gctcctggat cagattcaag cactgcggtg 750
gattgaggag aatgtgggag cctttggcgg ggacccaag agagtgacca 800
tctttggctc gggggctggg gcctcctgtg tcagcctgtt gaccctgtcc 850
cactactcag aaggtctctt ccagaaggcc atcattcaga gcggcaccgc 900
cctgtccagc tgggcagtga actaccagcc ggccaagtac actcggatat 950
tggcagacaa ggtcggctgc aacatgctgg acaccacgga catggtagaa 1000
tgctgcgga acaagaacta caaggagctc atccagcaga ccatcacccc 1050
ggccacctac cacatagcct tcgggcccgt gatcgacggc gacgtcatcc 1100
cagacgaccc ccagatcctg atggagcaag gcgagttcct caactacgac 1150
atcatgctgg gcgtcaacca aggggaaggc ctgaagtctg tggacggcat 1200
cgtggataac gaggacggtg tgacgcccac cgactttgac ttctccgtgt 1250
ccaacttcgt ggacaacctt tacggctacc ctgaaggga agacactttg 1300
cgggagacta tcaagtcat gtacacagac tgggccgata aggaaaaccc 1350
ggagacgcgg cggaacccc tgggtgctct ctttactgac caccagtggg 1400
tggcccccgc cgtggccgcc gacctgcacg cgcagtacgg ctccccacc 1450
tacttctatg ccttctatca tcaactgcaa agcgaaatga agcccagctg 1500
ggcagattcg gcccatggtg atgaggtccc ctatgtcttc ggcattccca 1550
tgatcgttcc caccgagctc ttcagttgta acttttccaa gaacgacgtc 1600
atgctcagcg ccgtggtcat gacctactgg acgaacttcg ccaaaactgg 1650
tgatccaaat caaccagttc ctcaggatac caagttcatt cacacaaaac 1700
ccaaccgctt tgaagaagtg gcctgggtcca agtataatcc caaagaccag 1750
ctctatctgc atattggctt gaaaccaga gtgagagatc actaccgggc 1800
aacgaaagtg gctttctggt tggaactcgt tcctcatttg cacaacttga 1850
acgagatatt ccagtatgtt tcaacaacca caaaggttcc tccaccagac 1900
atgacatcat ttccctatgg caccggcgga tctcccgcca agatatggcc 1950
aaccaccaa cgcccagcaa tcaactctgc caacaatccc aaactctta 2000
aggacctca caaacaggg cctgaggaca caactgtcct cattgaaacc 2050
aaacgagatt attccaccga attaatgtc accattgccg tcggggcgtc 2100

gctcctcttc ctcaacatct tagcttttgc ggcgctgtac tacaaaaagg 2150
acaagaggcg ccatgagact cacaggcgcc ccagtcccca gagaaacacc 2200
acaaatgata tcgctcacat ccagaacgaa gagatcatgt ctctgcagat 2250
gaagcagctg gaacacgatc acgagtgtga gtcgctgcag gcacacgaca 2300
cactgaggct cacctgcccg ccagactaca ccctcacgct gcgccggtcg 2350
ccagatgaca tcccacttat gacgccaaac accatcacca tgattccaaa 2400
cacactgacg gggatgcagc ctttgcacac ttttaacacc ttcagtggag 2450
gacaaaacag tacaaattta ccccacggac attccaccac tagagtatag 2500
ctttgcccta tttcccttcc tatccctctg ccctaccgc tcagcaacat 2550
agaagaggga aggaaagaga gaaggaaaga gagagagaaa gaaagtctcc 2600
agaccaggaa tgtttttgtc cactgactt aagacaaaaa tgcaaaaagg 2650
cagtcatccc atcccggcag acccttatcg ttggtgtttt ccagtattac 2700
aagatcaact tctgaccctg tgaaatgtga gaagtacaca tttctgttaa 2750
aataactgct ttaagatctc taccactoca atcaatgttt agtgtgatag 2800
gacatcacca tttcaaggcc ccgggtgttt ccaacgtcat ggaagcagct 2850
gacacttctg aaactcagcc aaggacactt gatatttttt aattacaatg 2900
gaagttaa aa catttctttc tgtgccacac aatggatggc tctccttaag 2950
tgaagaaaga gtcaatgaga ttttgcccag cacatggagc tgtaatccag 3000
agagaaggaa acgtagaaat ttattattaa aagaatggac tgtgcagcga 3050
aatctgtacg gttctgtgca aagaggtggt ttgccagcct gaactatatt 3100
taagagactt tgt 3113

<210> 375

<211> 816

<212> PRT

<213> Homo sapiens

<400> 375

Met	Leu	Asn	Ser	Asn	Val	Leu	Leu	Trp	Leu	Thr	Ala	Leu	Ala	Ile
1				5					10					15

Lys	Phe	Thr	Leu	Ile	Asp	Ser	Gln	Ala	Gln	Tyr	Pro	Val	Val	Asn
				20					25					30

Thr	Asn	Tyr	Gly	Lys	Ile	Arg	Gly	Leu	Arg	Thr	Pro	Leu	Pro	Asn
				35				40						45

Glu	Ile	Leu	Gly	Pro	Val	Glu	Gln	Tyr	Leu	Gly	Val	Pro	Tyr	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50										55					60				
Ser	Pro	Pro	Thr	Gly	Glu	Arg	Arg	Phe	Gln	Pro	Pro	Glu	Pro	Pro					
				65					70					75					
Ser	Ser	Trp	Thr	Gly	Ile	Arg	Asn	Thr	Thr	Gln	Phe	Ala	Ala	Val					
				80					85					90					
Cys	Pro	Gln	His	Leu	Asp	Glu	Arg	Ser	Leu	Leu	His	Asp	Met	Leu					
				95					100					105					
Pro	Ile	Trp	Phe	Thr	Ala	Asn	Leu	Asp	Thr	Leu	Met	Thr	Tyr	Val					
				110					115					120					
Gln	Asp	Gln	Asn	Glu	Asp	Cys	Leu	Tyr	Leu	Asn	Ile	Tyr	Val	Pro					
				125					130					135					
Thr	Glu	Asp	Gly	Ala	Asn	Thr	Lys	Lys	Asn	Ala	Asp	Asp	Ile	Thr					
				140					145					150					
Ser	Asn	Asp	Arg	Gly	Glu	Asp	Glu	Asp	Ile	His	Asp	Gln	Asn	Ser					
				155					160					165					
Lys	Lys	Pro	Val	Met	Val	Tyr	Ile	His	Gly	Gly	Ser	Tyr	Met	Glu					
				170					175					180					
Gly	Thr	Gly	Asn	Met	Ile	Asp	Gly	Ser	Ile	Leu	Ala	Ser	Tyr	Gly					
				185					190					195					
Asn	Val	Ile	Val	Ile	Thr	Ile	Asn	Tyr	Arg	Leu	Gly	Ile	Leu	Gly					
				200					205					210					
Phe	Leu	Ser	Thr	Gly	Asp	Gln	Ala	Ala	Lys	Gly	Asn	Tyr	Gly	Leu					
				215					220					225					
Leu	Asp	Gln	Ile	Gln	Ala	Leu	Arg	Trp	Ile	Glu	Glu	Asn	Val	Gly					
				230					235					240					
Ala	Phe	Gly	Gly	Asp	Pro	Lys	Arg	Val	Thr	Ile	Phe	Gly	Ser	Gly					
				245					250					255					
Ala	Gly	Ala	Ser	Cys	Val	Ser	Leu	Leu	Thr	Leu	Ser	His	Tyr	Ser					
				260					265					270					
Glu	Gly	Leu	Phe	Gln	Lys	Ala	Ile	Ile	Gln	Ser	Gly	Thr	Ala	Leu					
				275					280					285					
Ser	Ser	Trp	Ala	Val	Asn	Tyr	Gln	Pro	Ala	Lys	Tyr	Thr	Arg	Ile					
				290					295					300					
Leu	Ala	Asp	Lys	Val	Gly	Cys	Asn	Met	Leu	Asp	Thr	Thr	Asp	Met					
				305					310					315					
Val	Glu	Cys	Leu	Arg	Asn	Lys	Asn	Tyr	Lys	Glu	Leu	Ile	Gln	Gln					
				320					325					330					
Thr	Ile	Thr	Pro	Ala	Thr	Tyr	His	Ile	Ala	Phe	Gly	Pro	Val	Ile					
				335					340					345					

Asp Gly Asp Val	Ile Pro Asp Asp Pro	Gln Ile Leu Met Glu Gln	350	355	360
Gly Glu Phe Leu	Asn Tyr Asp Ile Met	Leu Gly Val Asn Gln Gly	365	370	375
Glu Gly Leu Lys	Phe Val Asp Gly Ile	Val Asp Asn Glu Asp Gly	380	385	390
Val Thr Pro Asn	Asp Phe Asp Phe Ser	Val Ser Asn Phe Val Asp	395	400	405
Asn Leu Tyr Gly	Tyr Pro Glu Gly Lys	Asp Thr Leu Arg Glu Thr	410	415	420
Ile Lys Phe Met	Tyr Thr Asp Trp Ala	Asp Lys Glu Asn Pro Glu	425	430	435
Thr Arg Arg Lys	Thr Leu Val Ala Leu	Phe Thr Asp His Gln Trp	440	445	450
Val Ala Pro Ala	Val Ala Ala Asp Leu	His Ala Gln Tyr Gly Ser	455	460	465
Pro Thr Tyr Phe	Tyr Ala Phe Tyr His	His Cys Gln Ser Glu Met	470	475	480
Lys Pro Ser Trp	Ala Asp Ser Ala His	Gly Asp Glu Val Pro Tyr	485	490	495
Val Phe Gly Ile	Pro Met Ile Gly Pro	Thr Glu Leu Phe Ser Cys	500	505	510
Asn Phe Ser Lys	Asn Asp Val Met Leu	Ser Ala Val Val Met Thr	515	520	525
Tyr Trp Thr Asn	Phe Ala Lys Thr Gly	Asp Pro Asn Gln Pro Val	530	535	540
Pro Gln Asp Thr	Lys Phe Ile His Thr	Lys Pro Asn Arg Phe Glu	545	550	555
Glu Val Ala Trp	Ser Lys Tyr Asn Pro	Lys Asp Gln Leu Tyr Leu	560	565	570
His Ile Gly Leu	Lys Pro Arg Val Arg	Asp His Tyr Arg Ala Thr	575	580	585
Lys Val Ala Phe	Trp Leu Glu Leu Val	Pro His Leu His Asn Leu	590	595	600
Asn Glu Ile Phe	Gln Tyr Val Ser Thr	Thr Thr Lys Val Pro Pro	605	610	615
Pro Asp Met Thr	Ser Phe Pro Tyr Gly	Thr Arg Arg Ser Pro Ala	620	625	630
Lys Ile Trp Pro	Thr Thr Lys Arg Pro	Ala Ile Thr Pro Ala Asn			

aacccccgag ccaaaagatg gtcac 25

<210> 378

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 378

gtaccggtga ccaggcagca aaaggcaact atgggctcct ggatcag 47

<210> 379

<211> 2461

<212> DNA

<213> Homo sapiens

<400> 379

gggaaagatg gcggcgactc tgggacccct tgggtcgtgg cagcagtggc 50

ggcgatgttt gtcggctcgg gatgggtcca ggatgttact ctttcttctt 100

ttgttggggg ctgggcaggg gccacagcaa gtcggggcggt gtcaaacgtt 150

cgagtacttg aaacggggagc actcgctgtc gaagccctac cagggtgtgg 200

gcacaggcag ttcctcactg tggaatctga tgggcaatgc catggtgatg 250

accaggtata tccgccttac ccagatatg caaagtaaac aggggtgcctt 300

gtggaaccgg gtgccatgtt tcctgagaga ctgggagttg cagggtgcact 350

tcaaaatcca tggacaagga aagaagaatc tgcattgggga tggcttggca 400

atctggtaca caaaggatcg gatgcagcca gggcctgtgt ttggaaacat 450

ggacaaattt gtggggctgg gagtatttgt agacacctac cccaatgagg 500

agaagcagca agagcgggta ttcccctaca tctcagccat ggtgaacaac 550

ggctccctca gctatgatca tgagcgggat gggcggccta cagagctggg 600

aggctgcaca gccattgtcc gcaatcttca ttacgacacc ttcttgggtg 650

ttcgctacgt caagaggcat ttgacgataa tgatggatat tgatggcaag 700

catgagtgga gggactgcat tgaagtgccg ggagtccgcc tgccccgcgg 750

ctactacttc ggcacctcct ccatcactgg ggatctctca gataatcatg 800

atgtcatttc cttgaagttg tttgaactga cagtggagag aaccccagaa 850

gaggaaaagc tccatcgaga tgtgttcttg ccctcagtgg acaatatgaa 900

gctgcctgag atgacagctc cactgccgcc cctgagtggc ctggccctct 950

tcctcatcgt ctttttctcc ctgggtgttt ctgtatttgc catagtcatt 1000

ggtatcatac tctacaacaa atggcaggaa cagagccgaa agcgcttcta 1050
 ctgagccctc ctgctgccac cacttttgtg actgtcacc c atgaggtatg 1100
 gaaggagcag gcactggcct gagcatgcag cctggagagt gttcttgtct 1150
 ctagcagctg gttggggact atattctgtc actggagttt tgaatgcagg 1200
 gaccccgcat tcccatgggt gtgcatgggg acatctaact ctggtctggg 1250
 aagccacca cccagggca atgctgctgt gatgtgcctt tccctgcagt 1300
 ccttccatgt gggagcagag gtgtgaagag aatttacgtg gttgtgatgc 1350
 caaaatcaca gaacagaatt tcatagccca ggctgccgtg ttgtttgact 1400
 cagaaggccc ttctacttca gttttgaatc cacaagaat taaaaactgg 1450
 taacaccaca ggctttctga ccatccattc gttgggtttt gcatttgacc 1500
 caaccctctg cctacctgag gagctttctt tggaaaccag gatggaaact 1550
 tcttccctgc cttaccttcc tttcactcca ttcattgtcc tctctgtgtg 1600
 caacctgagc tgggaaaggc atttggatgc ctctctgttg gggcctgggg 1650
 ctgcagaaca cacctgcgtt tcaactggcct tcattaggtg gccctaggga 1700
 gatggcttct tgctttggat cactgttccc tagcatgggt cttgggtcta 1750
 ttggcatgtc catggccttc ccaatcaagt ctcttcaggc cctcagtga 1800
 gtttggctaa aggttggtgt aaaaatcaag agaagcctgg aagacatcat 1850
 ggatgccatg gattagctgt gcaactgacc agctccagg ttagatcaaac 1900
 caaaagcaac atttgtcatg tggctctgacc atgtggagat gtttctggac 1950
 ttgctagagc ctgcttagct gcatgttttg tagttacgat ttttggaatc 2000
 ccactttgag tgctgaaagt gtaaggaagc tttcttctta caccttgggc 2050
 ttggatattg cccagagaag aaatttggct ttttttttct taatggacaa 2100
 gagacagttg ctgttctcat gttccaagtc tgagagcaac agaccctcat 2150
 catctgtgcc tggaagagtt cactgtcatt gagcagcaca gcctgagtgc 2200
 tggcctctgt caacccttat tccactgcct tatttgacaa ggggttacat 2250
 gctgctcacc ttactgccct gggattaaat cagttacagg ccagagtctc 2300
 cttggagggc ctggaactct gagtcctcct atgaacctct gtagcctaaa 2350
 tgaaattctt aaaatcaccg atggaaccaa aaaaaaaaaa aaaaaggcg 2400
 gccgcgactc tagagtcgac ctgcagtagg gataacagg taataagctt 2450

Ile	Thr	Gly	Asp	Leu	Ser	Asp	Asn	His	Asp	Val	Ile	Ser	Leu	Lys
				260					265					270
Leu	Phe	Glu	Leu	Thr	Val	Glu	Arg	Thr	Pro	Glu	Glu	Glu	Lys	Leu
				275					280					285
His	Arg	Asp	Val	Phe	Leu	Pro	Ser	Val	Asp	Asn	Met	Lys	Leu	Pro
				290					295					300
Glu	Met	Thr	Ala	Pro	Leu	Pro	Pro	Leu	Ser	Gly	Leu	Ala	Leu	Phe
				305					310					315
Leu	Ile	Val	Phe	Phe	Ser	Leu	Val	Phe	Ser	Val	Phe	Ala	Ile	Val
				320					325					330
Ile	Gly	Ile	Ile	Leu	Tyr	Asn	Lys	Trp	Gln	Glu	Gln	Ser	Arg	Lys
				335					340					345

Arg Phe Tyr

<210> 381
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 381
 ccttgggtcg tggcagcagt gg 22

<210> 382
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 382
 cactctccag gctgcatgct cagg 24

<210> 383
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 383
 gtcaaacggtt cgagtacttg aaacgggagc actcgctgtc gaagc 45

<210> 384
 <211> 3150
 <212> DNA
 <213> Homo sapiens

ttcagaagcc aggttcccaa ggtttgcagc caggttgatc tttgagcttt 1500
 ggcaagacag agaaaagccc agtgaacatt ccgtccggat tctttacaat 1550
 ggcgtcgatg tcacattcca cacctctttc tgccaagacc accacaagcg 1600
 ttctcccaag cccatgtgcc cgcttgaaaa cttgggtccgc tttgtgaaaa 1650
 gggacatggt tgtagccctg ggtggcagtg gtacaaatta ttatgatgca 1700
 tgtcacaggg aaggattcta aaaggatgc agtacagcag tatagaatcc 1750
 atgccaatac agagcatagg gaaaggcca cttctagttt tgtctgttac 1800
 taagggtaga agattattgc tttttaaagg cttaaatttg tttgtgggaa 1850
 ccacagatgg ttgggggtga acagtaagca cattgctgca atgtggtacg 1900
 tgaattgctt ggtacaaaat ggccagttca cagaggaata gaaggactt 1950
 tatcatagcc agacttcgct tagaatgcca gaataatata gttcaagacc 2000
 tgaagttgcc aatccaagtt tgcaactctt tggcctgccc catgttacta 2050
 tgtgatggaa ccagcacacc tcaacaaaaa tttttttaat cttagacatt 2100
 tttaccttgt ccttggttaag aatttcttga agtgatttat ctaaaataaa 2150
 ggttgcaaaa ctttttctgt aaagggccag attgtaaata tttcagactg 2200
 tgtggaccaaa aaggccacat acagtctctg tcataactac tcaactctgt 2250
 ttctgaagca ggaaagccac cacagacagt acataaagga atatgtgtag 2300
 ctgggttccc aggccagaca aaacagatgg tgaccagact tggcccctgg 2350
 gctgtagttt gctgaccctt catctaaaaa ataggctata ctacaattgc 2400
 acttccagca ctttgagaac gagttgaata ccaagaatta ttcaatggtt 2450
 cctccagtaa cttctgctag aaacacagaa tttggtctgt atctgacact 2500
 agaacaaaac ttgagggtaa ataaacattg aattagaatg aatcatagaa 2550
 aactgattag aagaatactt gatgtttatg atgattgtgg tacaagatag 2600
 ttttaagtat gttctaaata tttgtctgct gtagtctatt tgctgtatat 2650
 gctgaaattt ttgtatgcca tttagtattt ttatagttta ggaaaatatt 2700
 ttctaagacc agtttttagat gactcttatt cctgtagtaa tattcaattt 2750
 gctgtacctg cttggtggtt agaaggaggc tagaagatga attcaggcac 2800
 tttcttccaa taaaactaat tatggctcat tccctttgac aagctgtaga 2850
 actggattca tttttaaac attttcatca gtttcaaatt gttaaattctg 2900

attgattttt aaatgogttt ttggaagaac tttgctatta ggtagtttac 2950
 agatctttat aaggtgtttt atatattaga agcaattata attacatctg 3000
 tgatttctga actaatggtg ctaattcaga gaaatggaaa gtgaaagtga 3050
 gattctctgt tgtcatcggc attccaactt tttctctttg tttttgtcca 3100
 gtgttgcatc tgaatatgtc tgtttctata aataaatttt ttaagaataa 3150

<210> 385

<211> 480

<212> PRT

<213> Homo sapiens

<400> 385

Met	Leu	Phe	Arg	Asn	Arg	Phe	Leu	Leu	Leu	Leu	Ala	Leu	Ala	Ala	1	5	10	15
Leu	Leu	Ala	Phe	Val	Ser	Leu	Ser	Leu	Gln	Phe	Phe	His	Leu	Ile	20	25	30	
Pro	Val	Ser	Thr	Pro	Lys	Asn	Gly	Met	Ser	Ser	Lys	Ser	Arg	Lys	35	40	45	
Arg	Ile	Met	Pro	Asp	Pro	Val	Thr	Glu	Pro	Pro	Val	Thr	Asp	Pro	50	55	60	
Val	Tyr	Glu	Ala	Leu	Leu	Tyr	Cys	Asn	Ile	Pro	Ser	Val	Ala	Glu	65	70	75	
Arg	Ser	Met	Glu	Gly	His	Ala	Pro	His	His	Phe	Lys	Leu	Val	Ser	80	85	90	
Val	His	Val	Phe	Ile	Arg	His	Gly	Asp	Arg	Tyr	Pro	Leu	Tyr	Val	95	100	105	
Ile	Pro	Lys	Thr	Lys	Arg	Pro	Glu	Ile	Asp	Cys	Thr	Leu	Val	Ala	110	115	120	
Asn	Arg	Lys	Pro	Tyr	His	Pro	Lys	Leu	Glu	Ala	Phe	Ile	Ser	His	125	130	135	
Met	Ser	Lys	Gly	Ser	Gly	Ala	Ser	Phe	Glu	Ser	Pro	Leu	Asn	Ser	140	145	150	
Leu	Pro	Leu	Tyr	Pro	Asn	His	Pro	Leu	Cys	Glu	Met	Gly	Glu	Leu	155	160	165	
Thr	Gln	Thr	Gly	Val	Val	Gln	His	Leu	Gln	Asn	Gly	Gln	Leu	Leu	170	175	180	
Arg	Asp	Ile	Tyr	Leu	Lys	Lys	His	Lys	Leu	Leu	Pro	Asn	Asp	Trp	185	190	195	
Ser	Ala	Asp	Gln	Leu	Tyr	Leu	Glu	Thr	Thr	Gly	Lys	Ser	Arg	Thr	200	205	210	

Leu	Gln	Ser	Gly	Leu	Ala	Leu	Leu	Tyr	Gly	Phe	Leu	Pro	Asp	Phe	215	220	225
Asp	Trp	Lys	Lys	Ile	Tyr	Phe	Arg	His	Gln	Pro	Ser	Ala	Leu	Phe	230	235	240
Cys	Ser	Gly	Ser	Cys	Tyr	Cys	Pro	Val	Arg	Asn	Gln	Tyr	Leu	Glu	245	250	255
Lys	Glu	Gln	Arg	Arg	Gln	Tyr	Leu	Leu	Arg	Leu	Lys	Asn	Ser	Gln	260	265	270
Leu	Glu	Lys	Thr	Tyr	Gly	Glu	Met	Ala	Lys	Ile	Val	Asp	Val	Pro	275	280	285
Thr	Lys	Gln	Leu	Arg	Ala	Ala	Asn	Pro	Ile	Asp	Ser	Met	Leu	Cys	290	295	300
His	Phe	Cys	His	Asn	Val	Ser	Phe	Pro	Cys	Thr	Arg	Asn	Gly	Cys	305	310	315
Val	Asp	Met	Glu	His	Phe	Lys	Val	Ile	Lys	Thr	His	Gln	Ile	Glu	320	325	330
Asp	Glu	Arg	Glu	Arg	Arg	Glu	Lys	Lys	Leu	Tyr	Phe	Gly	Tyr	Ser	335	340	345
Leu	Leu	Gly	Ala	His	Pro	Ile	Leu	Asn	Gln	Thr	Ile	Gly	Arg	Met	350	355	360
Gln	Arg	Ala	Thr	Glu	Gly	Arg	Lys	Glu	Glu	Leu	Phe	Ala	Leu	Tyr	365	370	375
Ser	Ala	His	Asp	Val	Thr	Leu	Ser	Pro	Val	Leu	Ser	Ala	Leu	Gly	380	385	390
Leu	Ser	Glu	Ala	Arg	Phe	Pro	Arg	Phe	Ala	Ala	Arg	Leu	Ile	Phe	395	400	405
Glu	Leu	Trp	Gln	Asp	Arg	Glu	Lys	Pro	Ser	Glu	His	Ser	Val	Arg	410	415	420
Ile	Leu	Tyr	Asn	Gly	Val	Asp	Val	Thr	Phe	His	Thr	Ser	Phe	Cys	425	430	435
Gln	Asp	His	His	Lys	Arg	Ser	Pro	Lys	Pro	Met	Cys	Pro	Leu	Glu	440	445	450
Asn	Leu	Val	Arg	Phe	Val	Lys	Arg	Asp	Met	Phe	Val	Ala	Leu	Gly	455	460	465
Gly	Ser	Gly	Thr	Asn	Tyr	Tyr	Asp	Ala	Cys	His	Arg	Glu	Gly	Phe	470	475	480

<210> 386

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 386
 ccaagcagct tagagctcca gacc 24

<210> 387
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 387
 ttccctatgc tctgtattgg catgg 25

<210> 388
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 388
 gccacttctg ccacaatgtc agctttccct gtaccagaaa tggctgtgtt 50

<210> 389
 <211> 3313
 <212> DNA
 <213> Homo sapiens

<400> 389
 aaaaaagctc actaaagttt ctattagagc gaatacggta gatttccatc 50
 cccttttgaa gaacagtact gtggagctat ttaagagata aaaacgaaat 100
 atcctttctg ggagttcaag attgtgcagt aattggttag gactctgagc 150
 gccgctgttc accaatcggg gagagaaaag cggagatcct gctcgccttg 200
 cacgcgcctg aagcacaaaag cagatagcta ggaatgaacc atccctggga 250
 gtatgtggaa acaacggagg agctctgact tcccaactgt cccattctat 300
 gggcgaagga actgctcctg acttcagtgg ttaagggcag aattgaaaat 350
 aattctggag gaagataaga atgattcctg cgcgactgca ccgggactac 400
 aaagggcttg tcctgctggg aatcctcctg gggactctgt gggagaccgg 450
 atgcaccag atacgtatt cagttccgga agagctggag aaaggctcta 500
 ggggtggcga catctccagg gacctggggc tggagccccg ggagctcgcg 550
 gagcgcggag tccgcacat cccagaggt aggacgcagc ttttcgccct 600

				290						295					300
Ile	Ser	Thr	Ile	Gly	Glu	Leu	Asp	His	Glu	Glu	Ser	Gly	Phe	Tyr	
				305					310					315	
Gln	Met	Glu	Val	Gln	Ala	Met	Asp	Asn	Ala	Gly	Tyr	Ser	Ala	Arg	
				320					325					330	
Ala	Lys	Val	Leu	Ile	Thr	Val	Leu	Asp	Val	Asn	Asp	Asn	Ala	Pro	
				335					340					345	
Glu	Val	Val	Leu	Thr	Ser	Leu	Ala	Ser	Ser	Val	Pro	Glu	Asn	Ser	
				350					355					360	
Pro	Arg	Gly	Thr	Leu	Ile	Ala	Leu	Leu	Asn	Val	Asn	Asp	Gln	Asp	
				365					370					375	
Ser	Glu	Glu	Asn	Gly	Gln	Val	Ile	Cys	Phe	Ile	Gln	Gly	Asn	Leu	
				380					385					390	
Pro	Phe	Lys	Leu	Glu	Lys	Ser	Tyr	Gly	Asn	Tyr	Tyr	Ser	Leu	Val	
				395					400					405	
Thr	Asp	Ile	Val	Leu	Asp	Arg	Glu	Gln	Val	Pro	Ser	Tyr	Asn	Ile	
				410					415					420	
Thr	Val	Thr	Ala	Thr	Asp	Arg	Gly	Thr	Pro	Pro	Leu	Ser	Thr	Glu	
				425					430					435	
Thr	His	Ile	Ser	Leu	Asn	Val	Ala	Asp	Thr	Asn	Asp	Asn	Pro	Pro	
				440					445					450	
Val	Phe	Pro	Gln	Ala	Ser	Tyr	Ser	Ala	Tyr	Ile	Pro	Glu	Asn	Asn	
				455					460					465	
Pro	Arg	Gly	Val	Ser	Leu	Val	Ser	Val	Thr	Ala	His	Asp	Pro	Asp	
				470					475					480	
Cys	Glu	Glu	Asn	Ala	Gln	Ile	Thr	Tyr	Ser	Leu	Ala	Glu	Asn	Thr	
				485					490					495	
Ile	Gln	Gly	Ala	Ser	Leu	Ser	Ser	Tyr	Val	Ser	Ile	Asn	Ser	Asp	
				500					505					510	
Thr	Gly	Val	Leu	Tyr	Ala	Leu	Ser	Ser	Phe	Asp	Tyr	Glu	Gln	Phe	
				515					520					525	
Arg	Asp	Leu	Gln	Val	Lys	Val	Met	Ala	Arg	Asp	Asn	Gly	His	Pro	
				530					535					540	
Pro	Leu	Ser	Ser	Asn	Val	Ser	Leu	Ser	Leu	Phe	Val	Leu	Asp	Gln	
				545					550					555	
Asn	Asp	Asn	Ala	Pro	Glu	Ile	Leu	Tyr	Pro	Ala	Leu	Pro	Thr	Asp	
				560					565					570	
Gly	Ser	Thr	Gly	Val	Glu	Leu	Ala	Pro	Arg	Ser	Ala	Glu	Pro	Gly	
				575					580					585	

Tyr	Leu	Val	Thr	Lys	Val	Val	Ala	Val	Asp	Arg	Asp	Ser	Gly	Gln	590	595	600
Asn	Ala	Trp	Leu	Ser	Tyr	Arg	Leu	Leu	Lys	Ala	Ser	Glu	Pro	Gly	605	610	615
Leu	Phe	Ser	Val	Gly	Leu	His	Thr	Gly	Glu	Val	Arg	Thr	Ala	Arg	620	625	630
Ala	Leu	Leu	Asp	Arg	Asp	Ala	Leu	Lys	Gln	Ser	Leu	Val	Val	Ala	635	640	645
Val	Gln	Asp	His	Gly	Gln	Pro	Pro	Leu	Ser	Ala	Thr	Val	Thr	Leu	650	655	660
Thr	Val	Ala	Val	Ala	Asp	Ser	Ile	Pro	Gln	Val	Leu	Ala	Asp	Leu	665	670	675
Gly	Ser	Leu	Glu	Ser	Pro	Ala	Asn	Ser	Glu	Thr	Ser	Asp	Leu	Thr	680	685	690
Leu	Tyr	Leu	Val	Val	Ala	Val	Ala	Ala	Val	Ser	Cys	Val	Phe	Leu	695	700	705
Ala	Phe	Val	Ile	Leu	Leu	Leu	Ala	Leu	Arg	Leu	Arg	Arg	Trp	His	710	715	720
Lys	Ser	Arg	Leu	Leu	Gln	Ala	Ser	Gly	Gly	Gly	Leu	Thr	Gly	Ala	725	730	735
Pro	Ala	Ser	His	Phe	Val	Gly	Val	Asp	Gly	Val	Gln	Ala	Phe	Leu	740	745	750
Gln	Thr	Tyr	Ser	His	Glu	Val	Ser	Leu	Thr	Thr	Asp	Ser	Arg	Lys	755	760	765
Ser	His	Leu	Ile	Phe	Pro	Gln	Pro	Asn	Tyr	Ala	Asp	Met	Leu	Val	770	775	780
Ser	Gln	Glu	Ser	Phe	Glu	Lys	Ser	Glu	Pro	Leu	Leu	Leu	Ser	Gly	785	790	795
Asp	Ser	Val	Phe	Ser	Lys	Asp	Ser	His	Gly	Leu	Ile	Glu	Val	Ser	800	805	810
Leu	Tyr	Gln	Ile	Phe	Phe	Leu	Phe	Phe	Phe	Asn	Cys	Ser	Val	Ser	815	820	825
Gln	Ala	Gly	Val	Gln	Arg	Tyr	Asp	His	Ser	Ser	Leu	Arg	Pro	Gln	830	835	840
Thr	Pro	Arg	Leu	Lys	Gln	Leu	Ser	His	Leu	Cys	Leu	Arg	Cys	Asn	845	850	855
Arg	Asp	Tyr	Arg	Cys	Lys	Pro	Pro	Thr	Val	Cys	Leu	Ser	Ile	Tyr	860	865	870
Leu	Ser	Ile	Tyr	Leu	Ser	Ile	Tyr	Leu	Ser	Ile	Tyr	Leu	Leu	Leu			

	875		880		885
Ser Cys Thr Asp Gly Ser Leu Thr Pro Val Ile Pro Val Leu Trp					
	890		895		900
Glu Ala Glu Ala Gly Gly Ser Pro Glu Val Gly Ser Leu Arg Pro					
	905		910		915

Ala

<210> 391
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 391
 tccgtctctg tgaaccgccc cac 23

<210> 392
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 392
 ctcgggcgca ttgtcgttct ggtc 24

<210> 393
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 393
 ccgactgtga aagagaacgc cccagatcca cttgttcccc 40

<210> 394
 <211> 999
 <212> DNA
 <213> Homo sapiens

<400> 394
 cccaggctct agtgcaggag gagaaggagg aggagcagga ggtggagatt 50
 cccagttaaa aggtccaga atcgtgtacc aggcagagaa ctgaagtact 100
 ggggcctcct ccactgggtc cgaatcagta ggtgaccccg cccctggatt 150
 ctggaagacc tcaccatggg acgccccga cctcgtgcgg ccaagacgtg 200

gatgttcctg ctcttgctgg ggggagcctg ggcaggacac tccagggcac 250
 aggaggacaa ggtgctgggg ggtcatgagt gccaacccca ttcgcagcct 300
 tggcaggcgg ccttggtcca gggccagcaa ctactctgtg gcggtgtcct 350
 tgtaggtggc aactgggtcc ttacagctgc ccactgtaaa aaaccgaaat 400
 acacagtacg cctgggagac cacagcctac agaataaaga tggcccagag 450
 caagaaatac ctgtggttca gtccatccca caccctgct acaacagcag 500
 cgatgtggag gaccacaacc atgatctgat gcttcttcaa ctgcgtgacc 550
 aggcattcct ggggtccaaa gtgaagccca tcagcctggc agatcattgc 600
 acccagcctg gccagaagtg caccgtctca ggctggggca ctgtcaccag 650
 tccccgagag aattttcctg acactctcaa ctgtgcagaa gtaaaaatct 700
 ttccccagaa gaagtgtgag gatgcttacc cggggcagat cacagatggc 750
 atggtctgtg caggcagcag caaaggggct gacacgtgcc agggcgattc 800
 tggaggcccc ctggtgtgtg atggtgcaact ccagggcatac acatcctggg 850
 gctcagaccc ctgtgggagg tccgacaaac ctggcgtcta taccaacatc 900
 tgccgctacc tggactggat caagaagatc ataggcagca agggctgatt 950
 ctaggataag cactagatct cccttaataa actcacaact ctctggttc 999

<210> 395

<211> 260

<212> PRT

<213> Homo sapiens

<400> 395

Met	Gly	Arg	Pro	Arg	Pro	Arg	Ala	Ala	Lys	Thr	Trp	Met	Phe	Leu
1				5					10					15
Leu	Leu	Leu	Gly	Gly	Ala	Trp	Ala	Gly	His	Ser	Arg	Ala	Gln	Glu
			20						25					30
Asp	Lys	Val	Leu	Gly	Gly	His	Glu	Cys	Gln	Pro	His	Ser	Gln	Pro
			35						40					45
Trp	Gln	Ala	Ala	Leu	Phe	Gln	Gly	Gln	Gln	Leu	Leu	Cys	Gly	Gly
			50						55					60
Val	Leu	Val	Gly	Gly	Asn	Trp	Val	Leu	Thr	Ala	Ala	His	Cys	Lys
			65						70					75
Lys	Pro	Lys	Tyr	Thr	Val	Arg	Leu	Gly	Asp	His	Ser	Leu	Gln	Asn
			80						85					90
Lys	Asp	Gly	Pro	Glu	Gln	Glu	Ile	Pro	Val	Val	Gln	Ser	Ile	Pro
			95						100					105

His	Pro	Cys	Tyr	Asn	Ser	Ser	Asp	Val	Glu	Asp	His	Asn	His	Asp
				110					115					120
Leu	Met	Leu	Leu	Gln	Leu	Arg	Asp	Gln	Ala	Ser	Leu	Gly	Ser	Lys
				125					130					135
Val	Lys	Pro	Ile	Ser	Leu	Ala	Asp	His	Cys	Thr	Gln	Pro	Gly	Gln
				140					145					150
Lys	Cys	Thr	Val	Ser	Gly	Trp	Gly	Thr	Val	Thr	Ser	Pro	Arg	Glu
				155					160					165
Asn	Phe	Pro	Asp	Thr	Leu	Asn	Cys	Ala	Glu	Val	Lys	Ile	Phe	Pro
				170					175					180
Gln	Lys	Lys	Cys	Glu	Asp	Ala	Tyr	Pro	Gly	Gln	Ile	Thr	Asp	Gly
				185					190					195
Met	Val	Cys	Ala	Gly	Ser	Ser	Lys	Gly	Ala	Asp	Thr	Cys	Gln	Gly
				200					205					210
Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Asp	Gly	Ala	Leu	Gln	Gly	Ile
				215					220					225
Thr	Ser	Trp	Gly	Ser	Asp	Pro	Cys	Gly	Arg	Ser	Asp	Lys	Pro	Gly
				230					235					240
Val	Tyr	Thr	Asn	Ile	Cys	Arg	Tyr	Leu	Asp	Trp	Ile	Lys	Lys	Ile
				245					250					255
Ile	Gly	Ser	Lys	Gly										
				260										

<210> 396

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 396

cagcctacag aataaagatg gccc 24

<210> 397

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 397

ggtgcaatga tctgccaggc tgat 24

<210> 398

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 398

agaaatacct gtggttcagt ccataccaaa cccctgctac aacagcag 48

<210> 399

<211> 2236

<212> DNA

<213> Homo sapiens

<400> 399

ggcgccggtg caccgggagg gctgagcgcc tcctgaggcc cggcctgcgc 50
 gccccggccc gccgagccgc ccacgcccc accccggccc gcgcccccta 100
 gccccgccc gggcccgcc ccgcgcccgc gccaggtga gcgctccgc 150
 cgccgcgagg ccccgcccc gcccgcccc gccccgccc ggccggcggg 200
 ggaaccgggc ggattcctcg cgcgtcaaac cacctgatcc cataaaacat 250
 tcatactccc ggcgagccgc gctgagagcg ccccgccagt ccgcgcccgc 300
 gccgacctcg cctgtgcgc cctgcgcgc ctgcgcaccc gcggcccag 350
 cccagccaga gccgggagga gcggagcgcg ccgagcctcg tcccgcgcc 400
 gggccggggc cgggcccgtg cggcggcgc tggatgcgga cccggccgcg 450
 ggagagcggg cgcccgcccc gaaacgaatt tcagtcccc acgcgccccg 500
 cccaaccct acgatgaaga gggcgccgc tggagggagc cggctgctgg 550
 catgggtgct gtggctgcag gcctggcagg tggcagcccc atgccaggt 600
 gcctgcgtat gctacaatga gccaagggtg acgacaagct gccccagca 650
 gggcctgcag gctgtgccg tgggcatccc tgctgccagc cagcgcatct 700
 tcctgcacgg caaccgcatc tcgcatgtgc cagctgccag cttccgtgcc 750
 tgccgcaacc tcaccatcct gtggctgcac tcgaatgtgc tggcccgaat 800
 tgatgcggct gccttcaact gcctggccct cctggagcag ctggacctca 850
 gcgataatgc acagctccg tctgtggacc ctgccacatt ccacggcctg 900
 ggccgcctac acacgctgca cctggaccgc tcgggcctgc aggagctggg 950
 cccggggctg ttccgcggcc tggtgccct gcagtacctc tacctgcagg 1000
 acaacgcgct gcaggcactg cctgatgaca cttccgcga cctgggcaac 1050
 ctcacacacc tottcctgca cggcaaccgc atctccagcg tgcccagcg 1100

cgcttccgt gggtgcaca gctcgaccg tctctactg caccagaacc 1150
 gcgtggccca tgtgcacccg catgccttcc gtgaccttgg ccgcctcatg 1200
 aactctatc tgtttgcca caatctatca gcgctgcca ctgaggccct 1250
 gggccccctg cgtgccctgc agtacctgag gctcaacgac aaccctggg 1300
 tgtgtgactg ccgggcacgc ccactctggg cctggctgca gaagttccgc 1350
 ggctcctcct ccgaggtgcc ctgcagcctc ccgcaacgcc tggctggccg 1400
 tgacctcaa cgcctagctg ccaatgacct gcagggctgc gctgtggcca 1450
 ccggccctta ccatcccatc tggaccggca gggccaccga tgaggagccg 1500
 ctggggcttc ccaagtgtg ccagccagat gccgctgaca aggcctcagt 1550
 actggagcct ggaagaccag cttcggcagg caatgcgctg aaggagcgcg 1600
 tgccgcccgg tgacagcccg ccgggcaacg gctctggccc acggcacatc 1650
 aatgactcac cctttgggac tctgcctggc tctgctgagc ccccgctcac 1700
 tgcaagtgcg cccgagggct ccgagccacc aggggttccc acctcggggc 1750
 ctgcgccgag gccaggtgtg tcacgcaaga accgcacccg cagccactgc 1800
 cgtctggggc aggcaggcag cgggggtggc gggactggtg actcagaagg 1850
 ctcaagtgcc ctaccagcc tcacctgcag cctcaccccc ctgggcctgg 1900
 cgctgggtgt gtggacagtg cttgggccct gctgaccccc agcggacaca 1950
 agagcgtgct cagcagccag gtgtgtgtac atacggggtc tctctccacg 2000
 ccgccaagcc agccgggcg ccgaccogtg gggcaggcca ggccaggtcc 2050
 tccctgatgg acgcctgccg cccgccaccc ccattctccac cccatcatgt 2100
 ttacaggggt cggcggcagc gtttgttcca gaacgccgcc tcccaccag 2150
 atcgcggtat atagagatat gcattttatt ttacttgtgt aaaaatatcg 2200
 gacgacgtgg aataaagagc tcttttotta aaaaaa 2236

<210> 400

<211> 473

<212> PRT

<213> Homo sapiens

<400> 400

Met	Lys	Arg	Ala	Ser	Ala	Gly	Gly	Ser	Arg	Leu	Leu	Ala	Trp	Val
1				5					10					15
Leu	Trp	Leu	Gln	Ala	Trp	Gln	Val	Ala	Ala	Pro	Cys	Pro	Gly	Ala
			20						25					30

<220>

<223> Synthetic oligonucleotide probe

<400> 403

aggcactgcc tgatgacacc ttccgcgacc tgggcaacct cacac 45

<210> 404

<211> 2738

<212> DNA

<213> Homo sapiens

<400> 404

ggaagtccac ggggagcttg gatgccaaag ggaggacggc tgggtcctct 50
ggagaggact actcactggc atatttctga ggtatctgta gaataaccac 100
agcctcagat actggggact ttacagtccc acagaaccgt cctcccagga 150
agctgaatcc agcaagaaca atggaggcca gcggaagct catttgca 200
caaaggcaag tccttttttc ctttctcctt ttgggcttat ctctggcggg 250
cgcggcggaa cctagaagct attctgtggt ggaggaaact gagggcagct 300
cctttgtcac caatttagca aaggacctgg gtctggagca gaggaattc 350
tccaggcggg gggttagggt tgtttccaga ggaacaaac tacatttgca 400
gctcaatcag gagaccgcg atttgttgct aaatgagaaa ttggaccgtg 450
aggatctgtg cggtcacaca gagccctgtg tgctacgttt ccaagtgttg 500
ctagagagtc ccttcgagtt ttttcaagct gagctgcaag taatagacat 550
aaacgaccac tctccagtat ttctggacaa acaaagtgtg gtgaaagtat 600
cagagagcag tcctcctggg actacgtttc ctctgaagaa tgccgaagac 650
ttagatgtag gccaaaacaa tattgagaac tatataatca gcccgaactc 700
ctattttcgg gtcctcaccg gcaaacgcag tgatggcagg aaatacccag 750
agctggtgct ggacaaagcg ctggaccgag aggaagaagc tgagctcagg 800
ttaaactca cagcactgga tgggtgctct cgcgccagat ctggcactgc 850
tcaggtctac atcgaagtcc tggatgtcaa cgataatgcc cctgaatttg 900
agcagccttt ctatagagtg cagatctctg aggacagtcc ggtaggcttc 950
ctggttggtga aggtctctgc cacggatgta gacacaggag tcaacggaga 1000
gatttctat tcacttttcc aagcttcaga agagattggc aaaaccttta 1050
agatcaatcc cttgacagga gaaattgaac taaaaaaca actcgatttc 1100
gaaaaacttc agtcctatga agtcaatatt gaggcaagag atgctggaac 1150

cttttctgga aaatgcaccg ttctgattca agtgatagat gtgaacgacc 1200
 atgccccaga agttaccatg tctgcattta ccagcccaat acctgagaac 1250
 gcgcctgaaa ctgtggttgc acttttcagt gtttcagatc ttgattcagg 1300
 agaaaatggg aaaattagtt gctccattca ggaggatcta cccttcctcc 1350
 tgaaatccgc ggaaaacttt tacaccctac taacggagag accactagac 1400
 agagaaagca gagcgggaata caacatcact atcactgtca ctgacttggg 1450
 gacccctatg ctgataacac agctcaatat gaccgtgctg atcgccgatg 1500
 tcaatgacaa cgctcccgcc ttaccccaaa cctcctacac cctgttcgtc 1550
 cgcgagaaca acagccccgc cctgcacatc cgcagcgtca gcgctacaga 1600
 cagagactca ggcaccaacg cccaggtcac ctactcgctg ctgccgcccc 1650
 aggacccgca cctgcccctc acatccctgg tctccatcaa cgcggacaac 1700
 ggccacctgt tcgcccctcag gtctctggac tacgaggccc tgcaggggtt 1750
 ccagttccgc gtggggcgctt cagaccacgg ctccccggcg ctgagcagcg 1800
 aggcgctggt gcgcgtggtg gtgctggacg ccaacgacaa ctcgcccttc 1850
 gtgctgtacc cgctgcagaa cggctccgcg ccctgcaccg agctggtgcc 1900
 ccgggcgggc gagccgggct acctggtgac caagggtggtg gcggtggacg 1950
 gcgactcggg ccagaacgcc tggctgtcgt accagctgct caaggccacg 2000
 gagctcggtc tgttcggcgt gtgggcgcac aatggcgagg tgcgcaccgc 2050
 caggctgctg agcgagcgcg acgcggccaa gcacaggctg gtggtgctgg 2100
 tcaaggacaa tggcgagcct ccgcgctcgg ccaccgccac gctgcacgtg 2150
 ctctgtgtgg acggcttctc ccagccctac ctgcctctcc cggaggcggc 2200
 cccgacctag gccagggcgg acttgctcac cgtctacctg gtggtggcgt 2250
 tggcctcggg gtcttcgctc ttctcttttt cgggtgctct gttcgtggcg 2300
 gtgcggctgt gtaggaggag cagggcgggc tcggtgggtc gctgcttggg 2350
 gcccgagggc ccccttcacg ggcattctgt ggacatgagc ggcaccagga 2400
 ccctatccca gagctaccag tatgaggtgt gtctggcagg aggctcaggg 2450
 accaatgagt tcaagttcct gaagccgatt atccccaact tccctcccca 2500
 gtgccctggg aaagaaatac aaggaaattc taccttcccc aataactttg 2550
 ggttcaatat tcagtgaaca tagttgactt ttacattcca taggtatttt 2600

attttgtggc atttccatgc caatgtttat ttcccccaat ttgtgtgtat 2650
gtaatatgtg acggatttac tcttgatttt tctcatgttc tttctccctt 2700
tgtttttaaag tgaacattta cctttattcc tggtttctt 2738

<210> 405
<211> 798
<212> PRT
<213> Homo sapiens

<400> 405

Met	Glu	Ala	Ser	Gly	Lys	Leu	Ile	Cys	Arg	Gln	Arg	Gln	Val	Leu	1	5	10	15
Phe	Ser	Phe	Leu	Leu	Leu	Gly	Leu	Ser	Leu	Ala	Gly	Ala	Ala	Glu	20	25	30	
Pro	Arg	Ser	Tyr	Ser	Val	Val	Glu	Glu	Thr	Glu	Gly	Ser	Ser	Phe	35	40	45	
Val	Thr	Asn	Leu	Ala	Lys	Asp	Leu	Gly	Leu	Glu	Gln	Arg	Glu	Phe	50	55	60	
Ser	Arg	Arg	Gly	Val	Arg	Val	Val	Ser	Arg	Gly	Asn	Lys	Leu	His	65	70	75	
Leu	Gln	Leu	Asn	Gln	Glu	Thr	Ala	Asp	Leu	Leu	Leu	Asn	Glu	Lys	80	85	90	
Leu	Asp	Arg	Glu	Asp	Leu	Cys	Gly	His	Thr	Glu	Pro	Cys	Val	Leu	95	100	105	
Arg	Phe	Gln	Val	Leu	Leu	Glu	Ser	Pro	Phe	Glu	Phe	Phe	Gln	Ala	110	115	120	
Glu	Leu	Gln	Val	Ile	Asp	Ile	Asn	Asp	His	Ser	Pro	Val	Phe	Leu	125	130	135	
Asp	Lys	Gln	Met	Leu	Val	Lys	Val	Ser	Glu	Ser	Ser	Pro	Pro	Gly	140	145	150	
Thr	Thr	Phe	Pro	Leu	Lys	Asn	Ala	Glu	Asp	Leu	Asp	Val	Gly	Gln	155	160	165	
Asn	Asn	Ile	Glu	Asn	Tyr	Ile	Ile	Ser	Pro	Asn	Ser	Tyr	Phe	Arg	170	175	180	
Val	Leu	Thr	Arg	Lys	Arg	Ser	Asp	Gly	Arg	Lys	Tyr	Pro	Glu	Leu	185	190	195	
Val	Leu	Asp	Lys	Ala	Leu	Asp	Arg	Glu	Glu	Glu	Ala	Glu	Leu	Arg	200	205	210	
Leu	Thr	Leu	Thr	Ala	Leu	Asp	Gly	Gly	Ser	Pro	Pro	Arg	Ser	Gly	215	220	225	
Thr	Ala	Gln	Val	Tyr	Ile	Glu	Val	Leu	Asp	Val	Asn	Asp	Asn	Ala				

Gly	Phe	Gln	Phe	Arg	Val	Gly	Ala	Ser	Asp	His	Gly	Ser	Pro	Ala	
				530					535					540	
Leu	Ser	Ser	Glu	Ala	Leu	Val	Arg	Val	Val	Val	Leu	Asp	Ala	Asn	
				545					550					555	
Asp	Asn	Ser	Pro	Phe	Val	Leu	Tyr	Pro	Leu	Gln	Asn	Gly	Ser	Ala	
				560					565					570	
Pro	Cys	Thr	Glu	Leu	Val	Pro	Arg	Ala	Ala	Glu	Pro	Gly	Tyr	Leu	
				575					580					585	
Val	Thr	Lys	Val	Val	Ala	Val	Asp	Gly	Asp	Ser	Gly	Gln	Asn	Ala	
				590					595					600	
Trp	Leu	Ser	Tyr	Gln	Leu	Leu	Lys	Ala	Thr	Glu	Leu	Gly	Leu	Phe	
				605					610					615	
Gly	Val	Trp	Ala	His	Asn	Gly	Glu	Val	Arg	Thr	Ala	Arg	Leu	Leu	
				620					625					630	
Ser	Glu	Arg	Asp	Ala	Ala	Lys	His	Arg	Leu	Val	Val	Leu	Val	Lys	
				635					640					645	
Asp	Asn	Gly	Glu	Pro	Pro	Arg	Ser	Ala	Thr	Ala	Thr	Leu	His	Val	
				650					655					660	
Leu	Leu	Val	Asp	Gly	Phe	Ser	Gln	Pro	Tyr	Leu	Pro	Leu	Pro	Glu	
				665					670					675	
Ala	Ala	Pro	Thr	Gln	Ala	Gln	Ala	Asp	Leu	Leu	Thr	Val	Tyr	Leu	
				680					685					690	
Val	Val	Ala	Leu	Ala	Ser	Val	Ser	Ser	Leu	Phe	Leu	Phe	Ser	Val	
				695					700					705	
Leu	Leu	Phe	Val	Ala	Val	Arg	Leu	Cys	Arg	Arg	Ser	Arg	Ala	Ala	
				710					715					720	
Ser	Val	Gly	Arg	Cys	Leu	Val	Pro	Glu	Gly	Pro	Leu	Pro	Gly	His	
				725					730					735	
Leu	Val	Asp	Met	Ser	Gly	Thr	Arg	Thr	Leu	Ser	Gln	Ser	Tyr	Gln	
				740					745					750	
Tyr	Glu	Val	Cys	Leu	Ala	Gly	Gly	Ser	Gly	Thr	Asn	Glu	Phe	Lys	
				755					760					765	
Phe	Leu	Lys	Pro	Ile	Ile	Pro	Asn	Phe	Pro	Pro	Gln	Cys	Pro	Gly	
				770					775					780	
Lys	Glu	Ile	Gln	Gly	Asn	Ser	Thr	Phe	Pro	Asn	Asn	Phe	Gly	Phe	
				785					790					795	
Asn	Ile	Gln													

<210> 406

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 406
ctgagaacgc gcctgaaact gtg 23

<210> 407
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 407
agcgttgtca ttgacatcgg cg 22

<210> 408
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 408
ttagttgctc cattcaggag gatctaccct tcctcctgaa atccgcggaa 50

<210> 409
<211> 1379
<212> DNA
<213> Homo sapiens

<400> 409
acccacgcgt ccgcccacgc gtccgcccac gcgtccgccc acgcgtccgc 50
gcgtagccgt gcgcccattg cctctcggcc tgggcaatgg tcccggctgc 100
cggtcgacga ccgccccgcg tcatgcggct cctcggctgg tggcaagtat 150
tgctgtgggt gctgggactt cccgtccgcg gcgtggaggt tgcagaggaa 200
agtggtcgct tatggtcaga ggagcagcct gctcaccctc tccaggtggg 250
ggctgtgtac ctgggtgagg aggagctcct gcatgaccgc atgggccagg 300
acagggcagc agaagaggcc aatgcggtgc tggggctgga cacccaaggc 350
gatcacatgg tgatgctgtc tgtgattcct ggggaagctg aggacaaagt 400
gagttcagag cctagcggcg tcacctgtgg tgctggagga gcggaggact 450
caagggtgcaa cgtccgagag agccttttct ctctggatgg cgctggagca 500

cacttccctg acagagaaga ggagtattac acagagccag aagtggcgga 550
 atctgacgca gccccgacag aggactccaa taacactgaa agtctgaaat 600
 ccccaaagggt gaactgtgag gagagaaaca ttacaggatt agaaaatttc 650
 actctgaaaa ttttaaataat gtcacaggac cttatggatt ttctgaaccc 700
 aaacggtagt gactgtactc tagtcctgtt ttacaccccg tggtgccgct 750
 tttctgccag tttggcccct cactttaact ctctgccccg ggcatttcca 800
 gctcttcact ttttggcact ggatgcatct cagcacagca gcctttctac 850
 caggtttggc accgtagctg ttcctaataat tttattattt caaggagcta 900
 aaccaatggc cagattttaat catacagatc gaacactgga aacactgaaa 950
 atcttcattt ttaatcagac aggtatagaa gccaagaaga atgtggtggt 1000
 aactcaagcc gaccaaataag gccctcttcc cagcactttg ataaaaagt 1050
 tggactgggt gcttgatatt tccttattct ttttaattag ttttattatg 1100
 tatgctacca ttogaactga gagtattcgg tggctaattc caggacaaga 1150
 gcaggaacat gtggagtagt gatggtctga aagaagttgg aaagaggaac 1200
 ttcaatcctt cgtttcagaa attagtgcta cagtttcata cattttctcc 1250
 agtgacgtgt tgacttgaaa cttcaggcag attaaaagaa tcatttggtg 1300
 aacaactgaa tgtataaaaa aattataaac tgggtgttta actagtattg 1350
 caataagcaa atgcaaaaaat attcaatag 1379

<210> 410
 <211> 360
 <212> PRT
 <213> Homo sapiens

<400> 410
 Met Val Pro Ala Ala Gly Arg Arg Pro Pro Arg Val Met Arg Leu
 1 5 10 15
 Leu Gly Trp Trp Gln Val Leu Leu Trp Val Leu Gly Leu Pro Val
 20 25 30
 Arg Gly Val Glu Val Ala Glu Glu Ser Gly Arg Leu Trp Ser Glu
 35 40 45
 Glu Gln Pro Ala His Pro Leu Gln Val Gly Ala Val Tyr Leu Gly
 50 55 60
 Glu Glu Glu Leu Leu His Asp Pro Met Gly Gln Asp Arg Ala Ala
 65 70 75
 Glu Glu Ala Asn Ala Val Leu Gly Leu Asp Thr Gln Gly Asp His

0997055-10101

80					85					90				
Met	Val	Met	Leu	Ser	Val	Ile	Pro	Gly	Glu	Ala	Glu	Asp	Lys	Val
				95					100					105
Ser	Ser	Glu	Pro	Ser	Gly	Val	Thr	Cys	Gly	Ala	Gly	Gly	Ala	Glu
				110					115					120
Asp	Ser	Arg	Cys	Asn	Val	Arg	Glu	Ser	Leu	Phe	Ser	Leu	Asp	Gly
				125					130					135
Ala	Gly	Ala	His	Phe	Pro	Asp	Arg	Glu	Glu	Glu	Tyr	Tyr	Thr	Glu
				140					145					150
Pro	Glu	Val	Ala	Glu	Ser	Asp	Ala	Ala	Pro	Thr	Glu	Asp	Ser	Asn
				155					160					165
Asn	Thr	Glu	Ser	Leu	Lys	Ser	Pro	Lys	Val	Asn	Cys	Glu	Glu	Arg
				170					175					180
Asn	Ile	Thr	Gly	Leu	Glu	Asn	Phe	Thr	Leu	Lys	Ile	Leu	Asn	Met
				185					190					195
Ser	Gln	Asp	Leu	Met	Asp	Phe	Leu	Asn	Pro	Asn	Gly	Ser	Asp	Cys
				200					205					210
Thr	Leu	Val	Leu	Phe	Tyr	Thr	Pro	Trp	Cys	Arg	Phe	Ser	Ala	Ser
				215					220					225
Leu	Ala	Pro	His	Phe	Asn	Ser	Leu	Pro	Arg	Ala	Phe	Pro	Ala	Leu
				230					235					240
His	Phe	Leu	Ala	Leu	Asp	Ala	Ser	Gln	His	Ser	Ser	Leu	Ser	Thr
				245					250					255
Arg	Phe	Gly	Thr	Val	Ala	Val	Pro	Asn	Ile	Leu	Leu	Phe	Gln	Gly
				260					265					270
Ala	Lys	Pro	Met	Ala	Arg	Phe	Asn	His	Thr	Asp	Arg	Thr	Leu	Glu
				275					280					285
Thr	Leu	Lys	Ile	Phe	Ile	Phe	Asn	Gln	Thr	Gly	Ile	Glu	Ala	Lys
				290					295					300
Lys	Asn	Val	Val	Val	Thr	Gln	Ala	Asp	Gln	Ile	Gly	Pro	Leu	Pro
				305					310					315
Ser	Thr	Leu	Ile	Lys	Ser	Val	Asp	Trp	Leu	Leu	Val	Phe	Ser	Leu
				320					325					330
Phe	Phe	Leu	Ile	Ser	Phe	Ile	Met	Tyr	Ala	Thr	Ile	Arg	Thr	Glu
				335					340					345
Ser	Ile	Arg	Trp	Leu	Ile	Pro	Gly	Gln	Glu	Gln	Glu	His	Val	Glu
				350					355					360

<210> 411
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 411
cacagagcca gaagtggcgg aatc 24

<210> 412
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 412
ccacatgttc ctgctcttgc cctgg 25

<210> 413
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 413
cggtagtgc tgtactctag tctgtttta caccocgtgg tgccg 45

<210> 414
<211> 1196
<212> DNA
<213> Homo sapiens

<400> 414
cccggctccg ctccctctgc ccctcgggg tcgcgcgcc acgatgctgc 50
agggccctgg ctgcgtgctg ctgctcttcc tcgcctcgca ctgctgcctg 100
ggctcggcgc gcgggctctt cctctttggc cagcccgact tctcctacaa 150
gcgagcaat tgcaagcca tcccggtcaa cctgcagctg tgccacggca 200
tcgaatacca gaacatgcgg ctgccaacc tgctgggcca cgagaccatg 250
aaggaggtgc tggagcaggc cggcgcttgg atcccgctgg tcatgaagca 300
gtgccacccg gacaccaaga agttcctgtg ctgcctcttc gccccgtct 350
gcctcgatga cctagacgag accatccagc catgccactc gctctgcgtg 400
caggtgaagg accgctgcgc ccggtcatg tccgccttcg gcttcccctg 450
gcccacatg cttgagtgcg accgtttccc ccaggacaac gacctttgca 500
tccccctcgc tagcagcgac cacctcctgc cagccaccga ggaagctcca 550

aaggtatgtg aagcctgcaa aaataaaaat gatgatgaca acgacataat 600
 ggaaacgctt tgtaaaaatg attttgcact gaaaataaaa gtgaaggaga 650
 taacctacat caaccgagat accaaaatca tcctggagac caagagcaag 700
 accatttaca agctgaacgg tgtgtccgaa agggacctga agaaatcgg 750
 gctgtggctc aaagacagct tgcagtgcac ctgtgaggag atgaacgaca 800
 tcaacgcgcc ctatctggtc atgggacaga aacaggggtg ggagctgggtg 850
 atcacctcgg tgaagcgggtg gcagaagggg cagagagagt tcaagcgc 900
 ctcccgagc atccgcaagc tgcagtgcta gtcccgcat cctgatggct 950
 ccgacaggcc tgctccagag cagggtgac catttctgct ccgggatctc 1000
 agctcccggtt cccaagcac actcctagct gctccagtct cagcctgggc 1050
 agcttcccc tgccttttgc acgtttgcat cccagcatt tcctgagtta 1100
 taaggccaca ggagtggata gctgttttca cctaaaggaa aagcccaccc 1150
 gaatcttgta gaaatattca aactaataaa atcatgaata ttttaa 1196

<210> 415

<211> 295

<212> PRT

<213> Homo sapiens

<400> 415

Met	Leu	Gln	Gly	Pro	Gly	Ser	Leu	Leu	Leu	Leu	Phe	Leu	Ala	Ser
1				5					10					15
His	Cys	Cys	Leu	Gly	Ser	Ala	Arg	Gly	Leu	Phe	Leu	Phe	Gly	Gln
				20					25					30
Pro	Asp	Phe	Ser	Tyr	Lys	Arg	Ser	Asn	Cys	Lys	Pro	Ile	Pro	Val
				35					40					45
Asn	Leu	Gln	Leu	Cys	His	Gly	Ile	Glu	Tyr	Gln	Asn	Met	Arg	Leu
				50					55					60
Pro	Asn	Leu	Leu	Gly	His	Glu	Thr	Met	Lys	Glu	Val	Leu	Glu	Gln
				65					70					75
Ala	Gly	Ala	Trp	Ile	Pro	Leu	Val	Met	Lys	Gln	Cys	His	Pro	Asp
				80					85					90
Thr	Lys	Lys	Phe	Leu	Cys	Ser	Leu	Phe	Ala	Pro	Val	Cys	Leu	Asp
				95					100					105
Asp	Leu	Asp	Glu	Thr	Ile	Gln	Pro	Cys	His	Ser	Leu	Cys	Val	Gln
				110					115					120
Val	Lys	Asp	Arg	Cys	Ala	Pro	Val	Met	Ser	Ala	Phe	Gly	Phe	Pro
				125					130					135

Trp	Pro	Asp	Met	Leu	Glu	Cys	Asp	Arg	Phe	Pro	Gln	Asp	Asn	Asp	
				140					145					150	
Leu	Cys	Ile	Pro	Leu	Ala	Ser	Ser	Asp	His	Leu	Leu	Pro	Ala	Thr	
				155					160					165	
Glu	Glu	Ala	Pro	Lys	Val	Cys	Glu	Ala	Cys	Lys	Asn	Lys	Asn	Asp	
				170					175					180	
Asp	Asp	Asn	Asp	Ile	Met	Glu	Thr	Leu	Cys	Lys	Asn	Asp	Phe	Ala	
				185					190					195	
Leu	Lys	Ile	Lys	Val	Lys	Glu	Ile	Thr	Tyr	Ile	Asn	Arg	Asp	Thr	
				200					205					210	
Lys	Ile	Ile	Leu	Glu	Thr	Lys	Ser	Lys	Thr	Ile	Tyr	Lys	Leu	Asn	
				215					220					225	
Gly	Val	Ser	Glu	Arg	Asp	Leu	Lys	Lys	Ser	Val	Leu	Trp	Leu	Lys	
				230					235					240	
Asp	Ser	Leu	Gln	Cys	Thr	Cys	Glu	Glu	Met	Asn	Asp	Ile	Asn	Ala	
				245					250					255	
Pro	Tyr	Leu	Val	Met	Gly	Gln	Lys	Gln	Gly	Gly	Glu	Leu	Val	Ile	
				260					265					270	
Thr	Ser	Val	Lys	Arg	Trp	Gln	Lys	Gly	Gln	Arg	Glu	Phe	Lys	Arg	
				275					280					285	
Ile	Ser	Arg	Ser	Ile	Arg	Lys	Leu	Gln	Cys						
				290					295						

<210> 416
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 416
 cctggctcgc tgctgctgct c 21

<210> 417
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 417
 cctcacaggt gcactgcaag ctgtc 25

<210> 418
 <211> 47
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 418

ctcttcctct ttggccagcc cgacttctcc tacaagcgca gaattgc 47

<210> 419

<211> 1830

<212> DNA

<213> Homo sapiens

<400> 419

gtggaggccg ccgacgatgg cggggccgac ggaggccgag acgggggttg 50
ccgagccccg ggccctgtgc gcgcagcggg gccaccgcac ctacgcgcgc 100
cgctgggtgt tctgtctgc gatcagcctg ctcaactgct ccaacgccac 150
gctgtggctc agctttgcac ctgtggctga cgtcattgct gaggacttgg 200
tctgtccat ggagcagatc aactggctgt cactggtcta cctcgtggtg 250
tccaccccat ttggcgtggc ggccatctgg atcctggact ccgtcgggct 300
ccgtgcggcg accatcctgg gtgcgtggct gaactttgcc gggagtgtgc 350
tacgcatggt gccctgcatg gttgttggga cccaaaacc atttgccttc 400
ctcatgggtg gccagagcct ctgtgccctt gccagagcc tggatcatct 450
ctctccagcc aagctggctg ccttgtggtt ccagagcac cagcgagcca 500
cggccaacat gctcgccacc atgtogaacc ctctgggcgt ccttgtggcc 550
aatgtgctgt cccctgtgct ggtcaagaag ggtgaggaca ttccgttaat 600
gctcgtgtc tataccatcc ctgctggcgt cgtctgcctg ctgtccacca 650
tctgcctgtg ggagagtgtg cccccaccc cgccctctgc cggggctgcc 700
agctccacct cagagaagtt cctggatggg ctcaagctgc agtcatgtg 750
gaacaaggcc tatgtcatcc tggctgtgtg cttgggggga atgatcggga 800
tctctgccag cttctcagcc ctctggagc agatcctctg tgcaagcggc 850
cactccagtg ggttttccgg cctctgtggc gctctcttca tcacgtttgg 900
gatcctgggg gcactggctc tcggccccta tgtggaccgg accaagcact 950
tactgaggc caccaagatt ggctgtgcc tgttctctct ggctgcgtg 1000
ccctttgcc tggtgtcca gctgcaggga cagacccttg ccctggctgc 1050
cacctgctcg ctgctcgggc tgtttggtt ctcggtgggc ccctggcca 1100

tggagttggc ggtcgagtgt tccttccccg tgggggaggg. ggctgccaca 1150
 ggcatgatct ttgtgctggg gcaggccgag ggaataactca tcatgctggc 1200
 aatgacggca ctgactgtgc gacgctcgga gccgtccttg tccacctgcc 1250
 agcaggggga ggatccactt gactggacag tgtctctgct gctgatggcc 1300
 ggctgtgca ccttcttcag ctgcatactg gcggtcttct tccacacccc 1350
 ataccggcgc ctgcaggccg agtctgggga gccccctcc acccgtaacg 1400
 ccgtgggcgg cgcagactca gggccgggtg tggaccgagg gggagcagga 1450
 agggctgggg tcctggggcc cagcacggcg actccggagt gcacggcgag 1500
 gggggcctcg ctagaggacc ccagagggcc cgggagcccc caccagcct 1550
 gccaccgagc gactccccgt gcgcaaggcc cagcagccac cgacgcgccc 1600
 tcccgccccg gcagactcgc aggcagggtc caagcgtcca ggtttattga 1650
 cccggctggg totcactcct ccttctctc cccgtgggtg atcacgtagc 1700
 tgagcgctt gtagtccagg ttgcccgcca catcgatgga ggcgaactgg 1750
 aacatctggt ccacctgcgg gcgggggga aagggtcct tgcgggctcc 1800
 gggagcgaat tacaagcgcg cacctgaaaa 1830

<210> 420

<211> 560

<212> PRT

<213> Homo sapiens

<400> 420

Met	Ala	Gly	Pro	Thr	Glu	Ala	Glu	Thr	Gly	Leu	Ala	Glu	Pro	Arg
1				5					10					15
Ala	Leu	Cys	Ala	Gln	Arg	Gly	His	Arg	Thr	Tyr	Ala	Arg	Arg	Trp
				20					25					30
Val	Phe	Leu	Leu	Ala	Ile	Ser	Leu	Leu	Asn	Cys	Ser	Asn	Ala	Thr
				35					40					45
Leu	Trp	Leu	Ser	Phe	Ala	Pro	Val	Ala	Asp	Val	Ile	Ala	Glu	Asp
				50					55					60
Leu	Val	Leu	Ser	Met	Glu	Gln	Ile	Asn	Trp	Leu	Ser	Leu	Val	Tyr
				65					70					75
Leu	Val	Val	Ser	Thr	Pro	Phe	Gly	Val	Ala	Ala	Ile	Trp	Ile	Leu
				80					85					90
Asp	Ser	Val	Gly	Leu	Arg	Ala	Ala	Thr	Ile	Leu	Gly	Ala	Trp	Leu
				95					100					105
Asn	Phe	Ala	Gly	Ser	Val	Leu	Arg	Met	Val	Pro	Cys	Met	Val	Val

110	115	120
Gly Thr Gln Asn Pro Phe Ala Phe Leu Met Gly Gly Gln Ser Leu		
125	130	135
Cys Ala Leu Ala Gln Ser Leu Val Ile Phe Ser Pro Ala Lys Leu		
140	145	150
Ala Ala Leu Trp Phe Pro Glu His Gln Arg Ala Thr Ala Asn Met		
155	160	165
Leu Ala Thr Met Ser Asn Pro Leu Gly Val Leu Val Ala Asn Val		
170	175	180
Leu Ser Pro Val Leu Val Lys Lys Gly Glu Asp Ile Pro Leu Met		
185	190	195
Leu Gly Val Tyr Thr Ile Pro Ala Gly Val Val Cys Leu Leu Ser		
200	205	210
Thr Ile Cys Leu Trp Glu Ser Val Pro Pro Thr Pro Pro Ser Ala		
215	220	225
Gly Ala Ala Ser Ser Thr Ser Glu Lys Phe Leu Asp Gly Leu Lys		
230	235	240
Leu Gln Leu Met Trp Asn Lys Ala Tyr Val Ile Leu Ala Val Cys		
245	250	255
Leu Gly Gly Met Ile Gly Ile Ser Ala Ser Phe Ser Ala Leu Leu		
260	265	270
Glu Gln Ile Leu Cys Ala Ser Gly His Ser Ser Gly Phe Ser Gly		
275	280	285
Leu Cys Gly Ala Leu Phe Ile Thr Phe Gly Ile Leu Gly Ala Leu		
290	295	300
Ala Leu Gly Pro Tyr Val Asp Arg Thr Lys His Phe Thr Glu Ala		
305	310	315
Thr Lys Ile Gly Leu Cys Leu Phe Ser Leu Ala Cys Val Pro Phe		
320	325	330
Ala Leu Val Ser Gln Leu Gln Gly Gln Thr Leu Ala Leu Ala Ala		
335	340	345
Thr Cys Ser Leu Leu Gly Leu Phe Gly Phe Ser Val Gly Pro Val		
350	355	360
Ala Met Glu Leu Ala Val Glu Cys Ser Phe Pro Val Gly Glu Gly		
365	370	375
Ala Ala Thr Gly Met Ile Phe Val Leu Gly Gln Ala Glu Gly Ile		
380	385	390
Leu Ile Met Leu Ala Met Thr Ala Leu Thr Val Arg Arg Ser Glu		
395	400	405

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 423

tatgtggacc ggaccaagca cttcactgag gccaccaaga ttg 43

<210> 424

<211> 4313

<212> DNA

<213> Homo sapiens

<400> 424

gtccacatc ctgctcaact gggtcaggtc cctcttagac cagctcttgt 50
ccatcatttg ctgaagtgga ccaactagtt cccagtagg gggctctccc 100
tggcaattct tgatcggcgt ttggacatct cagatcgctt ccaatgaaga 150
tggccttgcc ttggggctct gcttgtttca taatcatcta actatgggac 200
aagggttggtc cggcagctct gggggaagga gcacggggct gatcaagcca 250
tccaggaaac actggaggac ttgtccagcc ttgaaagaac tctagtgggt 300
tctgaatcta gcccacttgg cggtaagcat gatgcaactt ctgcaacttc 350
tgctggggct tttggggcca ggtggctact tatttctttt aggggattgt 400
caggagggtga cactctcac ggtgaaatac caagtgtcag aggaagtgcc 450
atctggtaca gtgatcggga agctgtccca ggaactgggc cgggaggaga 500
ggcggaggca agctggggcc gccttccagg tgttgacagc gcctcaggcg 550
ctccccattc aggtggactc tgaggaaggc ttgctcagca caggcaggcg 600
gctggatcga gagcagctgt gcgacagtg ggatccctgc ctggtttcct 650
ttgatgtgct tgccacaggg gatttggtc tgatccatgt ggagatccaa 700
gtgctggaca tcaatgacca ccagccacgg tttcccaaag gcgagcagga 750
gctggaaatc tctgagagcg cctctctgcg aaccgggatc ccctggaca 800
gagctcttga cccagacaca ggcoctaaca ccctgcacac ctacactctg 850
tctcccagtg agcactttgc cttggatgtc attgtggggc ctgatgagac 900
caaacatgca gaactcatag tgggtgaagga gctggacagg gaaatccatt 950
cattttttga tctggtgtta actgcctatg acaatgggaa ccccccaag 1000
tcaggtagca gcttggtcaa ggtcaacgtc ttggactcca atgacaatag 1050
ccctgcgttt gctgagagtt cactggcact ggaaatccaa gaagatgctg 1100

cacctggtac gcttctcata aaactgaccg ccacagaccc tgaccaaggc 1150
cccaatgggg aggtggagtt cttcctcagt aagcacatgc ctccagaggt 1200
gctggacacc ttcagtattg atgccaagac aggccaggtc attctgcgtc 1250
gacctctaga ctatgaaaag aaccctgcct acgaggtgga tgttcaggca 1300
agggacctgg gtcccaatcc tatcccagcc cattgcaaag ttctcatcaa 1350
ggttctggat gtcaatgaca acatcccaag catccacgtc acatgggcct 1400
cccagccatc actggtgtca gaagctcttc ccaaggacag ttttattgct 1450
cttgtcatgg cagatgactt ggattcagga cacaatgggt tgggtccactg 1500
ctggctgagc caagagctgg gccacttcag gctgaaaaga actaatggca 1550
acacatacat gttgctaacc aatgccacac tggacagaga gcagtggccc 1600
aaatataccc tcaactctgtt agcccaagac caaggactcc agcccttattc 1650
agccaagaaa cagctcagca ttcagatcag tgacatcaac gacaatgcac 1700
ctgtgtttga gaaaagcagg tatgaagtct ccacgcggga aaacaactta 1750
ccctctcttc acctcattac catcaaggct catgatgcag acttgggcat 1800
taatggaaaa gtctcatacc gcattccagga ctccccagtt gctcacttag 1850
tagctattga ctccaacaca ggagaggtca ctgctcagag gtcaactgaac 1900
tatgaagaga tggccggctt tgagttccag gtgatcgcag aggacagcgg 1950
gcaacccatg cttgcatcca gtgtctctgt gtgggtcagc ctcttgatg 2000
ccaatgataa tgccccagag gtggtccagc ctgtgctcag cgatggaaaa 2050
gccagcctct ccgtgcttgt gaatgcctcc acaggccacc tgctggtgcc 2100
catogagact cccaatggct tgggccagc gggcactgac acacctccac 2150
tggccactca cagctccogg ccattccttt tgacaaccat tgtggcaaga 2200
gatgcagact cgggggcaaa tggagagccc ctctacagca tccgcaatgg 2250
aatgaagcc cacctcttca tcctcaaccc tcatacgggg cagctgttcg 2300
tcaatgtcac caatgccagc agcctcattg ggagtgagtg ggagctggag 2350
atagtagtag aggaccaggg aagccccccc ttacagaccc gagccctggt 2400
gagggtcatg tttgtcacca gtgtggacca cctgaggggac tcagcccgc 2450
agcctggggc cttgagcatg tcgatgctga cggatgatctg cctggctgta 2500
ctgttgggca tcttcgggtt gatcctggct ttgttcatgt ccactctgcc 2550

gacagaaaag aaggacaaca gggcctacaa ctgtcgggag gccgagtcca 2600
 cctaccgcca gcagcccaag aggccccaga aacacattca gaaggcagac 2650
 atccacctcg tgcctgtgct caggggtcag gcaggtgagc cttgtgaagt 2700
 cgggcagtcc cacaagatg tggacaagga ggcgatgatg gaagcaggct 2750
 gggacccctg cctgcaggcc cccttccacc tcaccccgac cctgtacagg 2800
 acgctgcgta atcaaggcaa ccaggagca cgggcggaga gccgagaggt 2850
 gctgcaagac acggtcaacc tccttttcaa ccatcccagg cagaggaaatg 2900
 cctcccggga gaacctgaac ctccccgagc cccagcctgc cacaggccag 2950
 ccacgttcca ggcctctgaa ggttgcaggc agccccacag ggaggctggc 3000
 tggagaccag ggcagtgagg aagccccaca gagggcacca gcctcctctg 3050
 caaccctgag acggcagcga catctcaatg gcaaagtgtc ccctgagaaa 3100
 gaatcagggc cccgtcagat cctgcggagc ctggtccggc tgtctgtggc 3150
 tgccttcgcc gagcggaacc ccgtggagga gctcactgtg gattctcctc 3200
 ctgttcagca aatctcccag ctgctgtcct tgctgcatca gggccaattc 3250
 cagcccaaac caaaccaccg aggaaataag tacttggcca agccaggagg 3300
 cagcaggagt gcaatcccag acacagatgg cccaagtgca agggctggag 3350
 gccagacaga ccgagaacag gaggaagggc ctttggatcc tgaagaggac 3400
 ctctctgtga agcaactgct agaagaagag ctgtcaagtc tgctggaccc 3450
 cagcacaggt ctggccctgg accggctgag cggccctgac ccggcctgga 3500
 tggcgagact ctctttgccc ctcaccaoca actaccgtga caatgtgatc 3550
 tccccggatg ctgcagccac ggaggagccg aggaccttcc agacgttcgg 3600
 caaggcagag gcaccagagc tgagcccaac aggcacgagg ctggccagca 3650
 cctttgtctc ggagatgagc tcaactgctg agatgctgct ggaacagcgc 3700
 tccagcatgc ccgtggaggc cgcctccgag gcgctgcggc ggctctcggc 3750
 ctgcgggagg accctcagtt tagacttggc caccagtgca gcctcaggca 3800
 tgaaagtgca aggggaccca ggtggaaaga cggggactga gggcaagagc 3850
 agaggcagca gcagcagcag caggtgcctg tgaacatacc tcagacgcct 3900
 ctggatccaa gaaccagggg cctgaggatc tgtggacaag agctggtttc 3950
 taaaatcttg taactcacta gctagcggcg gcctgagaac tttaggggtga 4000

ctgatgctac cccacagag gaggcaagag cccaggact aacagctgac 4050
 tgaccaaagc agcccttgt aagcagctct gagtcttttg gaggacaggg 4100
 acggtttgtg gctgagataa gtgtttcctg gcaaacata tgtggagcac 4150
 aaagggtcag tcctctggca gaacagatgc cacggagtat cacaggcagg 4200
 aaagggtggc cttcttgggt agcaggagtc agggggctgt accctggggg 4250
 tgccaggaaa tgctctctga cctatcaata aaggaaaagc agtaaaaaaa 4300
 aaaaaaaaaa aaa 4313

<210> 425

<211> 1184

<212> PRT

<213> Homo sapiens

<400> 425

Met	Met	Gln	Leu	Leu	Gln	Leu	Leu	Leu	Gly	Leu	Leu	Gly	Pro	Gly	
1				5					10					15	
Gly	Tyr	Leu	Phe	Leu	Leu	Gly	Asp	Cys	Gln	Glu	Val	Thr	Thr	Leu	
				20					25					30	
Thr	Val	Lys	Tyr	Gln	Val	Ser	Glu	Glu	Val	Pro	Ser	Gly	Thr	Val	
				35					40					45	
Ile	Gly	Lys	Leu	Ser	Gln	Glu	Leu	Gly	Arg	Glu	Glu	Arg	Arg	Arg	
				50					55					60	
Gln	Ala	Gly	Ala	Ala	Phe	Gln	Val	Leu	Gln	Leu	Pro	Gln	Ala	Leu	
				65					70					75	
Pro	Ile	Gln	Val	Asp	Ser	Glu	Glu	Gly	Leu	Leu	Ser	Thr	Gly	Arg	
				80					85					90	
Arg	Leu	Asp	Arg	Glu	Gln	Leu	Cys	Arg	Gln	Trp	Asp	Pro	Cys	Leu	
				95					100					105	
Val	Ser	Phe	Asp	Val	Leu	Ala	Thr	Gly	Asp	Leu	Ala	Leu	Ile	His	
				110					115					120	
Val	Glu	Ile	Gln	Val	Leu	Asp	Ile	Asn	Asp	His	Gln	Pro	Arg	Phe	
				125					130					135	
Pro	Lys	Gly	Glu	Gln	Glu	Leu	Glu	Ile	Ser	Glu	Ser	Ala	Ser	Leu	
				140					145					150	
Arg	Thr	Arg	Ile	Pro	Leu	Asp	Arg	Ala	Leu	Asp	Pro	Asp	Thr	Gly	
				155					160					165	
Pro	Asn	Thr	Leu	His	Thr	Tyr	Thr	Leu	Ser	Pro	Ser	Glu	His	Phe	
				170					175					180	
Ala	Leu	Asp	Val	Ile	Val	Gly	Pro	Asp	Glu	Thr	Lys	His	Ala	Glu	
				185					190					195	

Leu Ile Val Val	Lys Glu Leu Asp Arg	Glu Ile His Ser Phe	Phe
200	205		210
Asp Leu Val Leu	Thr Ala Tyr Asp Asn Gly	Asn Pro Pro Lys Ser	
215	220		225
Gly Thr Ser Leu	Val Lys Val Asn Val Leu	Asp Ser Asn Asp Asn	
230	235		240
Ser Pro Ala Phe	Ala Glu Ser Ser Leu Ala	Leu Glu Ile Gln Glu	
245	250		255
Asp Ala Ala Pro	Gly Thr Leu Leu Ile Lys	Leu Thr Ala Thr Asp	
260	265		270
Pro Asp Gln Gly	Pro Asn Gly Glu Val Glu	Phe Phe Leu Ser Lys	
275	280		285
His Met Pro Pro	Glu Val Leu Asp Thr Phe	Ser Ile Asp Ala Lys	
290	295		300
Thr Gly Gln Val	Ile Leu Arg Arg Pro Leu	Asp Tyr Glu Lys Asn	
305	310		315
Pro Ala Tyr Glu	Val Asp Val Gln Ala Arg	Asp Leu Gly Pro Asn	
320	325		330
Pro Ile Pro Ala	His Cys Lys Val Leu Ile	Lys Val Leu Asp Val	
335	340		345
Asn Asp Asn Ile	Pro Ser Ile His Val Thr	Trp Ala Ser Gln Pro	
350	355		360
Ser Leu Val Ser	Glu Ala Leu Pro Lys Asp	Ser Phe Ile Ala Leu	
365	370		375
Val Met Ala Asp	Asp Leu Asp Ser Gly His	Asn Gly Leu Val His	
380	385		390
Cys Trp Leu Ser	Gln Glu Leu Gly His Phe	Arg Leu Lys Arg Thr	
395	400		405
Asn Gly Asn Thr	Tyr Met Leu Leu Thr Asn	Ala Thr Leu Asp Arg	
410	415		420
Glu Gln Trp Pro	Lys Tyr Thr Leu Thr Leu	Leu Ala Gln Asp Gln	
425	430		435
Gly Leu Gln Pro	Leu Ser Ala Lys Lys Gln	Leu Ser Ile Gln Ile	
440	445		450
Ser Asp Ile Asn	Asp Asn Ala Pro Val Phe	Glu Lys Ser Arg Tyr	
455	460		465
Glu Val Ser Thr	Arg Glu Asn Asn Leu Pro	Ser Leu His Leu Ile	
470	475		480
Thr Ile Lys Ala	His Asp Ala Asp Leu Gly	Ile Asn Gly Lys Val	

Leu Arg Gly Gln Ala Gly Glu Pro Cys Glu Val Gly Gln Ser His	785	790	795
Lys Asp Val Asp Lys Glu Ala Met Met Glu Ala Gly Trp Asp Pro	800	805	810
Cys Leu Gln Ala Pro Phe His Leu Thr Pro Thr Leu Tyr Arg Thr	815	820	825
Leu Arg Asn Gln Gly Asn Gln Gly Ala Pro Ala Glu Ser Arg Glu	830	835	840
Val Leu Gln Asp Thr Val Asn Leu Leu Phe Asn His Pro Arg Gln	845	850	855
Arg Asn Ala Ser Arg Glu Asn Leu Asn Leu Pro Glu Pro Gln Pro	860	865	870
Ala Thr Gly Gln Pro Arg Ser Arg Pro Leu Lys Val Ala Gly Ser	875	880	885
Pro Thr Gly Arg Leu Ala Gly Asp Gln Gly Ser Glu Glu Ala Pro	890	895	900
Gln Arg Pro Pro Ala Ser Ser Ala Thr Leu Arg Arg Gln Arg His	905	910	915
Leu Asn Gly Lys Val Ser Pro Glu Lys Glu Ser Gly Pro Arg Gln	920	925	930
Ile Leu Arg Ser Leu Val Arg Leu Ser Val Ala Ala Phe Ala Glu	935	940	945
Arg Asn Pro Val Glu Glu Leu Thr Val Asp Ser Pro Pro Val Gln	950	955	960
Gln Ile Ser Gln Leu Leu Ser Leu Leu His Gln Gly Gln Phe Gln	965	970	975
Pro Lys Pro Asn His Arg Gly Asn Lys Tyr Leu Ala Lys Pro Gly	980	985	990
Gly Ser Arg Ser Ala Ile Pro Asp Thr Asp Gly Pro Ser Ala Arg	995	1000	1005
Ala Gly Gly Gln Thr Asp Pro Glu Gln Glu Glu Gly Pro Leu Asp	1010	1015	1020
Pro Glu Glu Asp Leu Ser Val Lys Gln Leu Leu Glu Glu Glu Leu	1025	1030	1035
Ser Ser Leu Leu Asp Pro Ser Thr Gly Leu Ala Leu Asp Arg Leu	1040	1045	1050
Ser Ala Pro Asp Pro Ala Trp Met Ala Arg Leu Ser Leu Pro Leu	1055	1060	1065
Thr Thr Asn Tyr Arg Asp Asn Val Ile Ser Pro Asp Ala Ala Ala			

0097015807660

1070	1075	1080
Thr Glu Glu Pro Arg Thr Phe Gln Thr Phe Gly Lys Ala Glu Ala 1085	1090	1095
Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala Ser Thr Phe Val 1100	1105	1110
Ser Glu Met Ser Ser Leu Leu Glu Met Leu Leu Glu Gln Arg Ser 1115	1120	1125
Ser Met Pro Val Glu Ala Ala Ser Glu Ala Leu Arg Arg Leu Ser 1130	1135	1140
Val Cys Gly Arg Thr Leu Ser Leu Asp Leu Ala Thr Ser Ala Ala 1145	1150	1155
Ser Gly Met Lys Val Gln Gly Asp Pro Gly Gly Lys Thr Gly Thr 1160	1165	1170
Glu Gly Lys Ser Arg Gly Ser Ser Ser Ser Ser Arg Cys Leu 1175	1180	

<210> 426

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 426

gtaagcacat gcctccagag gtgc 24

<210> 427

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 427

gtgacgtgga tgcttggaat gttg 24

<210> 428

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 428

tggacacctt cagtattgat gccaaagacag gccagggtcat tctgcgtcga 50

<210> 429

<211> 2037

gtatgccttt agaataccgc accataatca ctgaagtcct tggagaactg 1400
cagttcaact tctatcaccg ttggtttgat gtgatcttcc tggtcagcgc 1450
tctctctagc atactcttcc tctatgtggc tcacaaacag gcaccagaga 1500
agcaaatggc accttgaact taagcctact acagactgtt agaggccagt 1550
ggtttcaaaa tttagatata agagggggga aaaatggaac cagggcctga 1600
cattttataa acaaacaaaa tgctatggta gcatttttca ctttcatagc 1650
atactccttc cccgtcaggt gatactatga ccatgagtag catcagccag 1700
aacatgagag ggagaactaa ctcaagacaa tactcagcag agagcatccc 1750
gtgtggatat gaggctgggtg tagaggcgga gaggagccaa gaaactaaag 1800
gtgaaaaata cactggaact ctggggcaag acatgtctat ggtagctgag 1850
ccaaacacgt aggatctccg ttttaagggt cacatggaaa aggttatagc 1900
tttgccttga gattgactca ttaaaatcag agactgtaac aaaaaaaaaa 1950
aaaaaaaaaa agggcgggccg cgactctaga gtcgacctgc agaagcttgg 2000
ccgccatggc ccaacttggt tattgcagct tataatg 2037

<210> 430

<211> 455

<212> PRT

<213> Homo sapiens

<400> 430

Met	Ser	Phe	Leu	Ile	Asp	Ser	Ser	Ile	Met	Ile	Thr	Ser	Gln	Ile
1				5					10					15
Leu	Phe	Phe	Gly	Phe	Gly	Trp	Leu	Phe	Phe	Met	Arg	Gln	Leu	Phe
			20						25					30
Lys	Asp	Tyr	Glu	Ile	Arg	Gln	Tyr	Val	Val	Gln	Val	Ile	Phe	Ser
			35						40					45
Val	Thr	Phe	Ala	Phe	Ser	Cys	Thr	Met	Phe	Glu	Leu	Ile	Ile	Phe
			50						55					60
Glu	Ile	Leu	Gly	Val	Leu	Asn	Ser	Ser	Ser	Arg	Tyr	Phe	His	Trp
			65						70					75
Lys	Met	Asn	Leu	Cys	Val	Ile	Leu	Leu	Ile	Leu	Val	Phe	Met	Val
			80						85					90
Pro	Phe	Tyr	Ile	Gly	Tyr	Phe	Ile	Val	Ser	Asn	Ile	Arg	Leu	Leu
			95						100					105
His	Lys	Gln	Arg	Leu	Leu	Phe	Ser	Cys	Leu	Leu	Trp	Leu	Thr	Phe
			110						115					120

Met Tyr Phe Phe	Trp Lys Leu Gly Asp	Pro Phe Pro Ile Leu Ser	125	130	135
Pro Lys His Gly	Ile Leu Ser Ile Glu Gln Leu Ile Ser Arg Val		140	145	150
Gly Val Ile Gly	Val Thr Leu Met Ala Leu Leu Ser Gly Phe Gly		155	160	165
Ala Val Asn Cys	Pro Tyr Thr Tyr Met Ser Tyr Phe Leu Arg Asn		170	175	180
Val Thr Asp Thr	Asp Ile Leu Ala Leu Glu Arg Arg Leu Leu Gln		185	190	195
Thr Met Asp Met	Ile Ile Ser Lys Lys Lys Arg Met Ala Met Ala		200	205	210
Arg Arg Thr Met	Phe Gln Lys Gly Glu Val His Asn Lys Pro Ser		215	220	225
Gly Phe Trp Gly	Met Ile Lys Ser Val Thr Thr Ser Ala Ser Gly		230	235	240
Ser Glu Asn Leu	Thr Leu Ile Gln Gln Glu Val Asp Ala Leu Glu		245	250	255
Glu Leu Ser Arg	Gln Leu Phe Leu Glu Thr Ala Asp Leu Tyr Ala		260	265	270
Thr Lys Glu Arg	Ile Glu Tyr Ser Lys Thr Phe Lys Gly Lys Tyr		275	280	285
Phe Asn Phe Leu	Gly Tyr Phe Phe Ser Ile Tyr Cys Val Trp Lys		290	295	300
Ile Phe Met Ala	Thr Ile Asn Ile Val Phe Asp Arg Val Gly Lys		305	310	315
Thr Asp Pro Val	Thr Arg Gly Ile Glu Ile Thr Val Asn Tyr Leu		320	325	330
Gly Ile Gln Phe	Asp Val Lys Phe Trp Ser Gln His Ile Ser Phe		335	340	345
Ile Leu Val Gly	Ile Ile Ile Val Thr Ser Ile Arg Gly Leu Leu		350	355	360
Ile Thr Leu Thr	Lys Phe Phe Tyr Ala Ile Ser Ser Ser Lys Ser		365	370	375
Ser Asn Val Ile	Val Leu Leu Leu Ala Gln Ile Met Gly Met Tyr		380	385	390
Phe Val Ser Ser	Val Leu Leu Ile Arg Met Ser Met Pro Leu Glu		395	400	405
Tyr Arg Thr Ile	Ile Thr Glu Val Leu Gly Glu Leu Gln Phe Asn				

410	415	420
Phe Tyr His Arg Trp Phe Asp Val Ile	Phe Leu Val Ser Ala Leu	
425	430	435
Ser Ser Ile Leu Phe Leu Tyr Leu Ala	His Lys Gln Ala Pro Glu	
440	445	450
Lys Gln Met Ala Pro		
455		

<210> 431
 <211> 407
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 78, 81, 113, 157, 224, 297
 <223> unknown base

<400> 431
 catgggaagt ggagcggag ccttccttac actcgccatg agtttcctca 50
 tcgactccag catcatgatt acctcccnga nactatTTTT tggatttggg 100
 tggcttttct tcngcgccaa tgtttaaaga ctatgagata cgtcagtatg 150
 ttgtacnggt gatcttctcc gtgacgtttg ccatttcttg caccatgttt 200
 gagctcatca tctttgaaat cttnngagta ttgaatagca gctcccgta 250
 ttttactgg aaaatgaacc tgtgtgtaat tctgctgac ctggttntca 300
 tgggtgccttt ttacattggc tattttattg tgagcaatat ccgactactg 350
 cataaacaac gactgctttt ttctgtctc ttatggctga cctttatgta 400
 tttccag 407

<210> 432
 <211> 457
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 31, 66, 81-82, 84, 122, 184, 187, 232, 241, 400, 424, 427, 434
 <223> unknown base

<400> 432
 gtgttgccct tggggagggg aaggggagcc nggcccttc ctaaaatttg 50
 gccaaagggt tcttnttga attccgggt nngnatacct tcccagaaaa 100
 tattttttgg atttgggta gnttttttc atgcgccaat tgtttaaaga 150
 ctatgagata cgtcagtatg ttgtacaggt gatnttntcc gtgacgtttg 200

cattttcttg caccatgttt gagctcatca tntttgaaat nttaggagta 250
 ttgaatagca gctcccgtta ttttactgg aaaatgaacc tgtgtgtaat 300
 tctgctgac ctgggttttca tgggtgccttt ttacattggc tattttattg 350
 tgagcaatat ccgactactg cataaacaac gactgctttt ttcctgtctn 400
 ttatggctga cctttatgta tttnttntgg aaantaggag atccctttcc 450
 cattctc 457

<210> 433
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 433
 aagtggagcc ggagccttcc 20

<210> 434
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 434
 tcgttgttta tgcagtagtc gg 22

<210> 435
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 435
 attgtttaaa gactatgaga tacgtcagta tgttgtagag g 41

<210> 436
 <211> 3951
 <212> DNA
 <213> Homo sapiens

<400> 436
 ctgcgcagc gatcgtccca tggccggggc tcggagccgc gacccttggg 50
 gggcctccgg gatttgctac ctttttggct ccctgctcgt cgaactgctc 100
 ttctcacggg ctgtcgcctt caatctggac gtgatgggtg ccttgcgcaa 150
 ggagggcgag ccaggcagcc tcttcggctt ctctgtggcc ctgcaccggc 200

057551-057550

agttgcagcc cccagccccag agctggctgc tgggtgggtgc tccccaggcc 250
ctggctcttc ctgggcagca ggccaatcgc actggaggcc tcttcgcttg 300
cccgttgagc ctggaggaga ctgactgcta cagagtggac atcgaccagg 350
gagctgatat gcaaaaggaa agcaaggaga accagtgggtt gggagtcagt 400
gttcggagcc aggggcctgg gggcaagatt gttacctgtg cacaccgata 450
tgaggcaagg cagcgagtgg accagatcct ggagacgcgg gatatgattg 500
gtcgtgtctt tgtgtctcgc caggacctgg ccatccggga tgagttggat 550
ggtaggggaat ggaagttctg tgaggagcgc cccaaggcc atgaacaatt 600
tggtttctgc cagcagggca cagctgccgc cttctcccct gatagccact 650
acctcctctt tggggcccca ggaacctata attggaaggg cacggccagg 700
gtggagctct gtgcacaggg ctccagcgac ctggcacacc tggacgacgg 750
tccctacgag gcggggggag agaaggagca ggacccccgc ctcatcccgg 800
tccctgcca cagctacttt ggcttctcta ttgactcggg gaaaggctctg 850
gtgcgtgcag aagagctgag ctttgtggct ggagcccccc gcgccaacca 900
caagggtgct gtggtcatcc tgcgcaagga cagcgccagt cgcttgggtgc 950
ccgaggttat gctgtctggg gagcgccctga cctccggctt tggctactca 1000
ctggctgtgg ctgacctcaa cagtgatggc tggccagacc tgatagtggg 1050
tgccccctac ttctttgagc gccagaaga gctggggggg gctgtgtatg 1100
tgtacttgaa ccaggggggt cactgggctg ggatctcccc tctccggctc 1150
tgcggtctcc ctgactccat gttcgggatc agcctggctg tcttggggga 1200
cctcaaccaa gatggctttc cagatattgc agtgggtgcc ccctttgatg 1250
gtgatgggaa agtcttcac taccatggga gcagcctggg ggttgtcgcc 1300
aaaccttcac aggtgctgga gggcgaggct gtgggcatca agagcttcgg 1350
ctactccctg tcaggcagct tggatatgga tgggaaccaa taccctgacc 1400
tgctgggtgg ctccctggct gacaccgag tgctcttcag ggccagaccc 1450
atcctccatg tctcccatga ggtctctatt gctccacgaa gcatcgacct 1500
ggagcagccc aactgtgctg gcggccactc ggtctgtgtg gacctaggg 1550
tctgtttcag ctacattgca gtcccagca gctatagccc tactgtggcc 1600
ctggactatg tgtagatgc ggacacagac cggaggctcc ggggcccagg 1650

tccccgtgtg acgttcctga gccgtaacct ggaagaaccc aagcaccagg 1700
cctcggggcac cgtgtggctg aagcaccagc atgaccgagt ctgtggagac 1750
gccatgttcc agctccagga aaatgtcaaa gacaagcttc gggccattgt 1800
agtgaccttg tcctacagtc tccagacccc tcggctccgg cgacaggctc 1850
ctggccaggg gctgcctcca gtggccccc tctcaatgc ccaccagccc 1900
agcaccagc gggcagagat ccacttcctg aagcaaggct gtggtgaaga 1950
caagatctgc cagagcaatc tgcagctggg ccacgcccgc ttctgtaccc 2000
gggtcagcga cacggaattc caacctctgc ccatggatgt ggatggaaca 2050
acagccctgt ttgcactgag tgggcagcca gtcattggcc tggagctgat 2100
ggtcaccaac ctgccatcgg acccagccca gcccaggct gatggggatg 2150
atgcccataga agcccagctc ctgggtcatgc ttcctgactc actgcactac 2200
tcagggggtcc gggccctgga ccctgcggag aagccactct gcctgtccaa 2250
tgagaatgcc tcccatgttg agtgtgagct ggggaacccc atgaagagag 2300
gtgcccaggc caccttctac ctcatcctta gcacctccgg gatcagcatt 2350
gagaccacgg aactggaggc agagctgctg ttggccacga tcagtgaaga 2400
ggagctgcat ccagtctctg cagcagcccg tgtcttcatt gagctgccac 2450
tgtccattgc aggaatggcc attccccagc aactcttctt ctctggtgtg 2500
gtgagggggc agagagccat gcagtctgag cgggatgtgg gcagcaaggc 2550
caagtatgag gtcacgggtt ccaaccaagg ccagtcgctc agaaccctgg 2600
gctctgcctt cctcaacatc atgtggcctc atgagattgc caatgggaag 2650
tggttgctgt acccaatgca ggttgagctg gagggcgggc aggggcctgg 2700
gcagaaaggc ctttgcctc ccaggcccaa catcctccac ctggatgtgg 2750
acagtaggga taggaggcgg cgggagctgg agccacctga gcagcaggag 2800
cctggtgagc ggcaggagcc cagcatgtcc tggtgccag tgcctctgc 2850
tgagaagaag aaaaacatca ccctggactg cgcccggggc acggccaact 2900
gtgtggtgtt cagctgccc ctctacagct ttgaccgagc ggctgtgctg 2950
catgtctggg gccgtctctg gaacagcacc tttctggagg agtactcagc 3000
tgtgaagtcc ctggaagtga ttgtccgggc caacatcaca gtgaagtcct 3050
ccataaagaa cttgatgctc cgagatgcct ccacagtgat ccagtgatg 3100

gtataacttgg accccatggc tgtggtggca gaaggagtgc cctggtgggt 3150
catcctcctg gctgtaactgg ctgggctgct ggtgctagca ctgctggtgc 3200
tgctcctgtg gaagatggga ttcttcaaac gggcgaagca ccccgaggcc 3250
accgtgcccc agtaccatgc ggtgaagatt cctcggaag accgacagca 3300
gttcaaggag gagaagacgg gcaccatcct gaggaacaac tggggcagcc 3350
cccggcggga gggcccggat gcacacccca tcctggctgc tgacgggcat 3400
cccgagctgg gccccgatgg gcacccagg ccaggcaccg cctaggttcc 3450
catgtcccag cctggcctgt ggctgccctc catcccttcc ccagagatgg 3500
ctccttggga tgaagagggg agagtgggct gctggtgtcg catcaagatt 3550
tggcaggatc ggcttcctca ggggcacaga cctctccac ccacaagaac 3600
tcctcccacc caacttcccc ttagagtgcg gtgagatgag agtgggtaaa 3650
tcagggacag ggccatgggg tagggtgaga agggcagggg tgtcctgatg 3700
caaaggtggg gagaagggat cctaattcct tcctctcca ttcaccctgt 3750
gtaacaggac cccaaggacc tgctccccg gaagtgcctt aacctagagg 3800
gtcggggagg aggttgtgtc actgactcag gctgctcctt ctctagtttc 3850
ccctctcctc tgaccttagt ttgctgccat cagtctagt gtttcgtggt 3900
ttogtctatt tattaataaa tatttgagaa caaaaaaaaa aaaaaaaaaa 3950
a 3951

<210> 437
<211> 1141
<212> PRT
<213> Homo sapiens

<400> 437
Met Ala Gly Ala Arg Ser Arg Asp Pro Trp Gly Ala Ser Gly Ile
1 5 10 15
Cys Tyr Leu Phe Gly Ser Leu Leu Val Glu Leu Leu Phe Ser Arg
20 25 30
Ala Val Ala Phe Asn Leu Asp Val Met Gly Ala Leu Arg Lys Glu
35 40 45
Gly Glu Pro Gly Ser Leu Phe Gly Phe Ser Val Ala Leu His Arg
50 55 60
Gln Leu Gln Pro Arg Pro Gln Ser Trp Leu Leu Val Gly Ala Pro
65 70 75
Gln Ala Leu Ala Leu Pro Gly Gln Gln Ala Asn Arg Thr Gly Gly

				80					85					90
Leu	Phe	Ala	Cys	Pro 95	Leu	Ser	Leu	Glu	Glu 100	Thr	Asp	Cys	Tyr	Arg 105
Val	Asp	Ile	Asp	Gln 110	Gly	Ala	Asp	Met	Gln 115	Lys	Glu	Ser	Lys	Glu 120
Asn	Gln	Trp	Leu	Gly 125	Val	Ser	Val	Arg	Ser 130	Gln	Gly	Pro	Gly	Gly 135
Lys	Ile	Val	Thr	Cys 140	Ala	His	Arg	Tyr	Glu 145	Ala	Arg	Gln	Arg	Val 150
Asp	Gln	Ile	Leu	Glu 155	Thr	Arg	Asp	Met	Ile 160	Gly	Arg	Cys	Phe	Val 165
Leu	Ser	Gln	Asp	Leu 170	Ala	Ile	Arg	Asp	Glu 175	Leu	Asp	Gly	Gly	Glu 180
Trp	Lys	Phe	Cys	Glu 185	Gly	Arg	Pro	Gln	Gly 190	His	Glu	Gln	Phe	Gly 195
Phe	Cys	Gln	Gln	Gly 200	Thr	Ala	Ala	Ala	Phe 205	Ser	Pro	Asp	Ser	His 210
Tyr	Leu	Leu	Phe	Gly 215	Ala	Pro	Gly	Thr	Tyr 220	Asn	Trp	Lys	Gly	Thr 225
Ala	Arg	Val	Glu	Leu 230	Cys	Ala	Gln	Gly	Ser 235	Ala	Asp	Leu	Ala	His 240
Leu	Asp	Asp	Gly	Pro 245	Tyr	Glu	Ala	Gly	Gly 250	Glu	Lys	Glu	Gln	Asp 255
Pro	Arg	Leu	Ile	Pro 260	Val	Pro	Ala	Asn	Ser 265	Tyr	Phe	Gly	Phe	Ser 270
Ile	Asp	Ser	Gly	Lys 275	Gly	Leu	Val	Arg	Ala 280	Glu	Glu	Leu	Ser	Phe 285
Val	Ala	Gly	Ala	Pro 290	Arg	Ala	Asn	His	Lys 295	Gly	Ala	Val	Val	Ile 300
Leu	Arg	Lys	Asp	Ser 305	Ala	Ser	Arg	Leu	Val 310	Pro	Glu	Val	Met	Leu 315
Ser	Gly	Glu	Arg	Leu 320	Thr	Ser	Gly	Phe	Gly 325	Tyr	Ser	Leu	Ala	Val 330
Ala	Asp	Leu	Asn	Ser 335	Asp	Gly	Trp	Pro	Asp 340	Leu	Ile	Val	Gly	Ala 345
Pro	Tyr	Phe	Phe	Glu 350	Arg	Gln	Glu	Glu	Leu 355	Gly	Gly	Ala	Val	Tyr 360
Val	Tyr	Leu	Asn	Gln 365	Gly	Gly	His	Trp	Ala 370	Gly	Ile	Ser	Pro	Leu 375

Arg	Leu	Cys	Gly	Ser	Pro	Asp	Ser	Met	Phe	Gly	Ile	Ser	Leu	Ala	
				380					385					390	
Val	Leu	Gly	Asp	Leu	Asn	Gln	Asp	Gly	Phe	Pro	Asp	Ile	Ala	Val	
				395					400					405	
Gly	Ala	Pro	Phe	Asp	Gly	Asp	Gly	Lys	Val	Phe	Ile	Tyr	His	Gly	
				410					415					420	
Ser	Ser	Leu	Gly	Val	Val	Ala	Lys	Pro	Ser	Gln	Val	Leu	Glu	Gly	
				425					430					435	
Glu	Ala	Val	Gly	Ile	Lys	Ser	Phe	Gly	Tyr	Ser	Leu	Ser	Gly	Ser	
				440					445					450	
Leu	Asp	Met	Asp	Gly	Asn	Gln	Tyr	Pro	Asp	Leu	Leu	Val	Gly	Ser	
				455					460					465	
Leu	Ala	Asp	Thr	Ala	Val	Leu	Phe	Arg	Ala	Arg	Pro	Ile	Leu	His	
				470					475					480	
Val	Ser	His	Glu	Val	Ser	Ile	Ala	Pro	Arg	Ser	Ile	Asp	Leu	Glu	
				485					490					495	
Gln	Pro	Asn	Cys	Ala	Gly	Gly	His	Ser	Val	Cys	Val	Asp	Leu	Arg	
				500					505					510	
Val	Cys	Phe	Ser	Tyr	Ile	Ala	Val	Pro	Ser	Ser	Tyr	Ser	Pro	Thr	
				515					520					525	
Val	Ala	Leu	Asp	Tyr	Val	Leu	Asp	Ala	Asp	Thr	Asp	Arg	Arg	Leu	
				530					535					540	
Arg	Gly	Gln	Val	Pro	Arg	Val	Thr	Phe	Leu	Ser	Arg	Asn	Leu	Glu	
				545					550					555	
Glu	Pro	Lys	His	Gln	Ala	Ser	Gly	Thr	Val	Trp	Leu	Lys	His	Gln	
				560					565					570	
His	Asp	Arg	Val	Cys	Gly	Asp	Ala	Met	Phe	Gln	Leu	Gln	Glu	Asn	
				575					580					585	
Val	Lys	Asp	Lys	Leu	Arg	Ala	Ile	Val	Val	Thr	Leu	Ser	Tyr	Ser	
				590					595					600	
Leu	Gln	Thr	Pro	Arg	Leu	Arg	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	
				605					610					615	
Pro	Pro	Val	Ala	Pro	Ile	Leu	Asn	Ala	His	Gln	Pro	Ser	Thr	Gln	
				620					625					630	
Arg	Ala	Glu	Ile	His	Phe	Leu	Lys	Gln	Gly	Cys	Gly	Glu	Asp	Lys	
				635					640					645	
Ile	Cys	Gln	Ser	Asn	Leu	Gln	Leu	Val	His	Ala	Arg	Phe	Cys	Thr	
				650					655					660	
Arg	Val	Ser	Asp	Thr	Glu	Phe	Gln	Pro	Leu	Pro	Met	Asp	Val	Asp	

					665					670					675
Gly	Thr	Thr	Ala	Leu	Phe	Ala	Leu	Ser	Gly	Gln	Pro	Val	Ile	Gly	
				680					685					690	
Leu	Glu	Leu	Met	Val	Thr	Asn	Leu	Pro	Ser	Asp	Pro	Ala	Gln	Pro	
				695					700					705	
Gln	Ala	Asp	Gly	Asp	Asp	Ala	His	Glu	Ala	Gln	Leu	Leu	Val	Met	
				710					715					720	
Leu	Pro	Asp	Ser	Leu	His	Tyr	Ser	Gly	Val	Arg	Ala	Leu	Asp	Pro	
				725					730					735	
Ala	Glu	Lys	Pro	Leu	Cys	Leu	Ser	Asn	Glu	Asn	Ala	Ser	His	Val	
				740					745					750	
Glu	Cys	Glu	Leu	Gly	Asn	Pro	Met	Lys	Arg	Gly	Ala	Gln	Val	Thr	
				755					760					765	
Phe	Tyr	Leu	Ile	Leu	Ser	Thr	Ser	Gly	Ile	Ser	Ile	Glu	Thr	Thr	
				770					775					780	
Glu	Leu	Glu	Val	Glu	Leu	Leu	Leu	Ala	Thr	Ile	Ser	Glu	Gln	Glu	
				785					790					795	
Leu	His	Pro	Val	Ser	Ala	Arg	Ala	Arg	Val	Phe	Ile	Glu	Leu	Pro	
				800					805					810	
Leu	Ser	Ile	Ala	Gly	Met	Ala	Ile	Pro	Gln	Gln	Leu	Phe	Phe	Ser	
				815					820					825	
Gly	Val	Val	Arg	Gly	Glu	Arg	Ala	Met	Gln	Ser	Glu	Arg	Asp	Val	
				830					835					840	
Gly	Ser	Lys	Val	Lys	Tyr	Glu	Val	Thr	Val	Ser	Asn	Gln	Gly	Gln	
				845					850					855	
Ser	Leu	Arg	Thr	Leu	Gly	Ser	Ala	Phe	Leu	Asn	Ile	Met	Trp	Pro	
				860					865					870	
His	Glu	Ile	Ala	Asn	Gly	Lys	Trp	Leu	Leu	Tyr	Pro	Met	Gln	Val	
				875					880					885	
Glu	Leu	Glu	Gly	Gly	Gln	Gly	Pro	Gly	Gln	Lys	Gly	Leu	Cys	Ser	
				890					895					900	
Pro	Arg	Pro	Asn	Ile	Leu	His	Leu	Asp	Val	Asp	Ser	Arg	Asp	Arg	
				905					910					915	
Arg	Arg	Arg	Glu	Leu	Glu	Pro	Pro	Glu	Gln	Gln	Glu	Pro	Gly	Glu	
				920					925					930	
Arg	Gln	Glu	Pro	Ser	Met	Ser	Trp	Trp	Pro	Val	Ser	Ser	Ala	Glu	
				935					940					945	
Lys	Lys	Lys	Asn	Ile	Thr	Leu	Asp	Cys	Ala	Arg	Gly	Thr	Ala	Asn	
				950					955					960	

Cys	Val	Val	Phe	Ser	Cys	Pro	Leu	Tyr	Ser	Phe	Asp	Arg	Ala	Ala	
				965					970					975	
Val	Leu	His	Val	Trp	Gly	Arg	Leu	Trp	Asn	Ser	Thr	Phe	Leu	Glu	
				980					985					990	
Glu	Tyr	Ser	Ala	Val	Lys	Ser	Leu	Glu	Val	Ile	Val	Arg	Ala	Asn	
				995					1000					1005	
Ile	Thr	Val	Lys	Ser	Ser	Ile	Lys	Asn	Leu	Met	Leu	Arg	Asp	Ala	
				1010					1015					1020	
Ser	Thr	Val	Ile	Pro	Val	Met	Val	Tyr	Leu	Asp	Pro	Met	Ala	Val	
				1025					1030					1035	
Val	Ala	Glu	Gly	Val	Pro	Trp	Trp	Val	Ile	Leu	Leu	Ala	Val	Leu	
				1040					1045					1050	
Ala	Gly	Leu	Leu	Val	Leu	Ala	Leu	Leu	Val	Leu	Leu	Leu	Trp	Lys	
				1055					1060					1065	
Met	Gly	Phe	Phe	Lys	Arg	Ala	Lys	His	Pro	Glu	Ala	Thr	Val	Pro	
				1070					1075					1080	
Gln	Tyr	His	Ala	Val	Lys	Ile	Pro	Arg	Glu	Asp	Arg	Gln	Gln	Phe	
				1085					1090					1095	
Lys	Glu	Glu	Lys	Thr	Gly	Thr	Ile	Leu	Arg	Asn	Asn	Trp	Gly	Ser	
				1100					1105					1110	
Pro	Arg	Arg	Glu	Gly	Pro	Asp	Ala	His	Pro	Ile	Leu	Ala	Ala	Asp	
				1115					1120					1125	
Gly	His	Pro	Glu	Leu	Gly	Pro	Asp	Gly	His	Pro	Gly	Pro	Gly	Thr	
				1130					1135					1140	

Ala

<210> 438
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 438
 ggctgacacc gcagtgtctt tcag 24

 <210> 439
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

tcagaagcat ttaccttgat aagaatgaac agtgtaccaa ggcattcttc 1000
aattcttgtg acacatacaa ggacagttta atatctaata atgagtgggtg 1050
ctactgcttc cagagacagc aagaccacc ttgccagact gagctcagca 1100
atattcagaa ggggcaaggg gtaaagaagc tcctaggaca gtatatcccc 1150
ctgtgtgatg aagatgggta ctacaagcca acacaatgtc atggcagtgt 1200
tggacagtgc tgggtgtgtg acagatatgg aaatgaagtc atgggatcca 1250
gaataaatgg tgttgcagat tgtgctatag attttgagat ctccggagat 1300
tttgctagtg gcgattttca tgaatggact gatgatgagg atgatgaaga 1350
cgatattatg aatgatgaag atgaaattga agatgatgat gaagatgaag 1400
gggatgatga tgatgggtgt gatgaccatg atgtatacat ttgattgatg 1450
acagttgaaa tcaataaatt ctacatttct aatatTTTaca aaaatgatag 1500
cctattttaa attatcttct tccccataa caaaatgatt ctaaacctca 1550
catatatttt gtataattat ttgaaaaatt gcagctaaag ttatagaact 1600
ttatgtttta ataagaatca tttgctttga gtttttatat tccttacaca 1650
aaaagaaaat acatatgcag tctagtcaga caaaataaag ttttgaagtg 1700
ctactataat aaatttttca cgagaacaaa ctttgtaaatt cttccataag 1750
caaaatgaca gctagtgtt gggatcgtac atgttaattt tttgaaagat 1800
aattctaagt gaaattttaa ataaataaat ttttaatgac ctgggtotta 1850
aggatttagg aaaaatatgc atgctttaat tgcatttcca aagtagcatc 1900
ttgctagacc tagatgagtc aggataacag agagatacca catgactcca 1950
aaaaaaaaaaaa 1964

<210> 442
<211> 436
<212> PRT
<213> Homo sapiens

<400> 442
Met Leu Lys Val Ser Ala Val Leu Cys Val Cys Ala Ala Ala Trp
1 5 10 15
Cys Ser Gln Ser Leu Ala Ala Ala Ala Val Ala Ala Ala Gly
20 25 30
Gly Arg Ser Asp Gly Gly Asn Phe Leu Asp Asp Lys Gln Trp Leu
35 40 45
Thr Thr Ile Ser Gln Tyr Asp Lys Glu Val Gly Gln Trp Asn Lys

50										55					60				
Phe	Arg	Asp	Glu	Val	Glu	Asp	Asp	Tyr	Phe	Arg	Thr	Trp	Ser	Pro					
				65					70					75					
Gly	Lys	Pro	Phe	Asp	Gln	Ala	Leu	Asp	Pro	Ala	Lys	Asp	Pro	Cys					
				80					85					90					
Leu	Lys	Met	Lys	Cys	Ser	Arg	His	Lys	Val	Cys	Ile	Ala	Gln	Asp					
				95					100					105					
Ser	Gln	Thr	Ala	Val	Cys	Ile	Ser	His	Arg	Arg	Leu	Thr	His	Arg					
				110					115					120					
Met	Lys	Glu	Ala	Gly	Val	Asp	His	Arg	Gln	Trp	Arg	Gly	Pro	Ile					
				125					130					135					
Leu	Ser	Thr	Cys	Lys	Gln	Cys	Pro	Val	Val	Tyr	Pro	Ser	Pro	Val					
				140					145					150					
Cys	Gly	Ser	Asp	Gly	His	Thr	Tyr	Ser	Phe	Gln	Cys	Lys	Leu	Glu					
				155					160					165					
Tyr	Gln	Ala	Cys	Val	Leu	Gly	Lys	Gln	Ile	Ser	Val	Lys	Cys	Glu					
				170					175					180					
Gly	His	Cys	Pro	Cys	Pro	Ser	Asp	Lys	Pro	Thr	Ser	Thr	Ser	Arg					
				185					190					195					
Asn	Val	Lys	Arg	Ala	Cys	Ser	Asp	Leu	Glu	Phe	Arg	Glu	Val	Ala					
				200					205					210					
Asn	Arg	Leu	Arg	Asp	Trp	Phe	Lys	Ala	Leu	His	Glu	Ser	Gly	Ser					
				215					220					225					
Gln	Asn	Lys	Lys	Thr	Lys	Thr	Leu	Leu	Arg	Pro	Glu	Arg	Ser	Arg					
				230					235					240					
Phe	Asp	Thr	Ser	Ile	Leu	Pro	Ile	Cys	Lys	Asp	Ser	Leu	Gly	Trp					
				245					250					255					
Met	Phe	Asn	Arg	Leu	Asp	Thr	Asn	Tyr	Asp	Leu	Leu	Leu	Asp	Gln					
				260					265					270					
Ser	Glu	Leu	Arg	Ser	Ile	Tyr	Leu	Asp	Lys	Asn	Glu	Gln	Cys	Thr					
				275					280					285					
Lys	Ala	Phe	Phe	Asn	Ser	Cys	Asp	Thr	Tyr	Lys	Asp	Ser	Leu	Ile					
				290					295					300					
Ser	Asn	Asn	Glu	Trp	Cys	Tyr	Cys	Phe	Gln	Arg	Gln	Gln	Asp	Pro					
				305					310					315					
Pro	Cys	Gln	Thr	Glu	Leu	Ser	Asn	Ile	Gln	Lys	Arg	Gln	Gly	Val					
				320					325					330					
Lys	Lys	Leu	Leu	Gly	Gln	Tyr	Ile	Pro	Leu	Cys	Asp	Glu	Asp	Gly					
				335					340					345					

Tyr	Tyr	Lys	Pro	Thr	Gln	Cys	His	Gly	Ser	Val	Gly	Gln	Cys	Trp
				350					355					360
Cys	Val	Asp	Arg	Tyr	Gly	Asn	Glu	Val	Met	Gly	Ser	Arg	Ile	Asn
				365					370					375
Gly	Val	Ala	Asp	Cys	Ala	Ile	Asp	Phe	Glu	Ile	Ser	Gly	Asp	Phe
				380					385					390
Ala	Ser	Gly	Asp	Phe	His	Glu	Trp	Thr	Asp	Asp	Glu	Asp	Asp	Glu
				395					400					405
Asp	Asp	Ile	Met	Asn	Asp	Glu	Asp	Glu	Ile	Glu	Asp	Asp	Asp	Glu
				410					415					420
Asp	Glu	Gly	Asp	Asp	Asp	Asp	Gly	Gly	Asp	Asp	His	Asp	Val	Tyr
				425					430					435

Ile

<210> 443
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 443
 cagcaatatt cagaagcggc aaggg 25

<210> 444
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 444
 catcatggtc atcaccacca tcatcatc 28

<210> 445
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 445
 ggttactaca agccaacaca atgtcatggc agtggttgac agtgctgg 48

<210> 446
 <211> 3617
 <212> DNA
 <213> Homo sapiens

0997030705

<400> 446

cagactccag atttccctgt caaccacgag gagtccagag aggaaacgcg 50
gagcggagac aacagtacct gacgcctctt tcagcccggg atcgccccag 100
cagggatggg cgacaagatc tggctgcctt tccccgtgct ctttctggcc 150
gctctgcctc cgggtgctgct gcctggggcg gccggcttca caccttcctt 200
cgatagcgac ttcaccttta cccttcccg cggccagaag gagtgccttct 250
accagcccat gcccctgaag gcctcgctgg agatcgagta ccaagtttta 300
gatggagcag gattagatat tgatttccat cttgcctctc cagaaggcaa 350
aaccttagtt tttgaacaaa gaaaatcaga tggagttcac actgtagaga 400
ctgaagttgg tgattacatg ttctgctttg acaatacatt cagcaccatt 450
tctgagaagg tgattttctt tgaattaatc ctggataata tgggagaaca 500
ggcacaagaa caagaagatt ggaagaaata tattactggc acagatatat 550
tggatatgaa actggaagac atcctggaat ccatcaacag catcaagtcc 600
agactaagca aaagtgggca catacaaatt ctgcttagag catttgaagc 650
tcgtgatcga aacatacaag aaagcaactt tgatagagtc aatttctggt 700
ctatggttaa tttagtggtc atggtggtgg tgtcagccat tcaagtttat 750
atgctgaaga gtctgtttga agataagagg aaaagtagaa cttaaaactc 800
caaactagag tacgtaacat tgaaaaatga ggcataaaaa tgcaataaac 850
tgttacagtc aagaccatta atggtcttct ccaaaatatt ttgagatata 900
aaagtaggaa acaggtataa ttttaatgtg aaaattaagt cttcactttc 950
tgtgcaagta atcctgctga tccagttgta ctttaagtgtg taacaggaat 1000
attttgcaga atataggttt aactgaatga agccatatta ataactgcat 1050
tttcctaact ttgaaaaatt ttgcaaatgt cttaggtgat tttaataaat 1100
gagtattggg cctaattgca acaccagtct gtttttaaca ggttctatta 1150
cccagaactt ttttgtaa at gggcagttta caaattaact gtggaagttt 1200
tcagttttta gttataaatc acctgagaat tacctaataga tggattgaat 1250
aaatcttttag actacaaaag cccaactttt ctctatttac atatgcatct 1300
ctcctataat gtaaatagaa taatagcttt gaaatacaat taggtttttg 1350
agattttttat aaccaaaatac atttcagtgt aacatattag cagaaagcat 1400
tagtctttgt actttgctta cattcccaaa agctgacatt ttcacgattc 1450

ttaaaaacac aaagttacac ttactaaaat taggacatgt tttctctttg 1500
 aaatgaagaa tatagtttaa aagcttcctc ctccataggg acacattttc 1550
 tctaaccctt aactaaagtg taggatttta aaattaaatg tgaggtaaaa 1600
 taagtttatt tttaatagta tctgtcaagt taatatctgt caacagttaa 1650
 taatcatggt atgttaattt taacatgatt gctgacttgg ataattcatt 1700
 attaccagca gttatgaagg aaatattgct aaaatgatct gggcctacca 1750
 taaataaata tctccttttc tgagctctaa gaattatcag aaaacaggaa 1800
 agaatttaga aaaacttgag aaaacctaatt ccaaaataaa attcaattaa 1850
 gtagaactat aaataaatat ctagaatctg actggctcat catgacatcc 1900
 tactcataac ataaatcaaa ggagatgatt aatttccagt tagctggaag 1950
 aaactttggc tgtaggtttt tattttctac aagaattctg gtttgaatta 2000
 tttttgtaag caggtaacatt ttataaaatg taagccctac tgtaagggtt 2050
 agcactgggt gtacatattt attaaaaatt tttattataa caacttttat 2100
 taaaatggcc tttctgaaca ctttatttat tgatgttgaa gtaaggatta 2150
 gaaacataga ctccaagtt ttaaacacct aaatgtgaat aacctatata 2200
 tacaacaaag tttctgccat ctagcttttt gaagtctatg ggggtcttac 2250
 tcaagtacta gtaatttaac ttcacatga atgaactata atttttaagt 2300
 tatgccatt tataacgttg tttatgacta cattgtgagt tagaaacaaa 2350
 cttaaaattt ggggtataga acccctcaac aggttagtaa tgctggaatt 2400
 cttgatgagc aataatgata accagagagt gatttcattt aactcatag 2450
 tagtataaaa agagatacat ttccctctta ggcccctggg agaagagcag 2500
 cttagatttc cctactggca aggtttttta aaatgaggta aatgcogtat 2550
 atgatcaatt accttaattg gccaagaaaa tgcttcaggt gtctaggggt 2600
 atcctctgca aactttgcag aacaaaggct aataagatcc ttgcctatga 2650
 ataccctcc cttttgcgct gttaaatttg caatgagaag caaatttaca 2700
 gtaccataac taataaagca gggtaacagat ataaactact gcatcttttc 2750
 tataaaactg tgattaagaa ttctacctct cctgtatggc tgttactgta 2800
 ctgtactctc tgactcctta cctaacaatg aatttggtac ataactttct 2850
 acatgtatga tttgtgccac tgatcttaaa cctatgattc agtaacttct 2900

taccatataa aaacgataat tgctttatatt ggaaaagaat ttaggaatac 2950
 taaggacaat tatttttata gacaaagtaa aaagacagat atttaagagg 3000
 cataacccaaa aaagcaaaac ttgtaaacag agtaaaaaatc tttaatatatt 3050
 ctaaagacat actgtttatc tgcttcatat gcttttttta atttcactat 3100
 tccattttcta aattaaagtt atgctaaatt gagtaagctg tttatcactt 3150
 aacagctcat tttgtctttt tcaatatata aatttttaaaa atactacaat 3200
 atttaactaa ggcccaaccg atttcataa tgtagcagtt accgtgttca 3250
 cctcacacta aggcctagag tttgctctga tatgcatttg gatgattaat 3300
 gttatgctgt tctttcatgt gaatgtcaag acatggaggg tgtttgtaat 3350
 tttatggtaa aattaatcct tcttacacat aatgggtgtct taaaattgac 3400
 aaaaaatgag cacttacaat tgtatgtctc ctcaaagtaa gattctttat 3450
 gtgaaatttt aaaagacatt gattccgcat gtaaggattt ttcactctgaa 3500
 gtacaataat gcacaatcag tgttgctcaa actgctttat acttataaac 3550
 agccatctta aataagcaac gtattgtgag tactgatatg tatataataa 3600
 aaattatcaa aggaaaa 3617

<210> 447
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 447
 Met Gly Asp Lys Ile Trp Leu Pro Phe Pro Val Leu Leu Leu Ala
 1 5 10 15
 Ala Leu Pro Pro Val Leu Leu Pro Gly Ala Ala Gly Phe Thr Pro
 20 25 30
 Ser Leu Asp Ser Asp Phe Thr Phe Thr Leu Pro Ala Gly Gln Lys
 35 40 45
 Glu Cys Phe Tyr Gln Pro Met Pro Leu Lys Ala Ser Leu Glu Ile
 50 55 60
 Glu Tyr Gln Val Leu Asp Gly Ala Gly Leu Asp Ile Asp Phe His
 65 70 75
 Leu Ala Ser Pro Glu Gly Lys Thr Leu Val Phe Glu Gln Arg Lys
 80 85 90
 Ser Asp Gly Val His Thr Val Glu Thr Glu Val Gly Asp Tyr Met
 95 100 105
 Phe Cys Phe Asp Asn Thr Phe Ser Thr Ile Ser Glu Lys Val Ile

	110		115		120
Phe Phe Glu Leu	Ile Leu Asp Asn Met	Gly Glu Gln Ala Gln Glu			
	125	130			135
Gln Glu Asp Trp	Lys Lys Tyr Ile Thr	Gly Thr Asp Ile Leu Asp			
	140	145			150
Met Lys Leu Glu	Asp Ile Leu Glu Ser	Ile Asn Ser Ile Lys Ser			
	155	160			165
Arg Leu Ser Lys	Ser Gly His Ile Gln	Ile Leu Leu Arg Ala Phe			
	170	175			180
Glu Ala Arg Asp	Arg Asn Ile Gln Glu	Ser Asn Phe Asp Arg Val			
	185	190			195
Asn Phe Trp Ser	Met Val Asn Leu Val	Val Met Val Val Val Ser			
	200	205			210
Ala Ile Gln Val	Tyr Met Leu Lys Ser	Leu Phe Glu Asp Lys Arg			
	215	220			225
Lys Ser Arg Thr					

<210> 448
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 448
 cccagcaggg ctgggcgaca aga 23

<210> 449
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 449
 gtcttcaggt ttcatatcca ata 23

<210> 450
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 450
 ccagaaggag cacggggaag ggcagccaga tcttgcgcc cat 43

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

ctgaaagctt tggtaatgat catagcacct tggatgggta ttccagaaga 650
 accaccttgt cttcaaaaat gtatcacacc aaaggacaag aaggttctgt 700
 ttgtctccgg tcatcagact gtgcctcagg attgtgttgt gctagacact 750
 tctgggtccaa gatctgtaaa cctgtcctga aagaaggta agtgtgtacc 800
 aagcatagga gaaaaggctc tcatggacta gaaatattcc agcgttggtta 850
 ctgtggagaa ggtctgtctt gccggataca gaaagatcac catcaagcca 900
 gtaattcttc taggcttcac acttgtcaga gacactaaac cagctatcca 950
 aatgcagtga actcctttta tataatagat gctatgaaaa ccttttatga 1000
 ccttcatcaa ctcaatccta aggatataca agttctgtgg tttcagttaa 1050
 gcattccaat aacaccttcc aaaaacctgg agtgtaagag ctttgtttct 1100
 ttatggaact cccctgtgat tgcagtaaat tactgtattg taaattctca 1150
 gtgtggcact tacctgtaaa tgcaatgaaa cttttaatta tttttctaaa 1200
 ggtgctgcac tgctatttt tctcttgtt atgtaaattt ttgtacacat 1250
 tgattgttat cttgactgac aaatattcta tattgaactg aagtaaatca 1300
 tttcagctta tagttcttaa aagcataacc ctttacccca ttttaattcta 1350
 gagtctagaa cgcaaggatc tcttggaatg acaaatgata ggtacctaaa 1400
 atgtaacatg aaaatactag cttattttct gaaatgtact atcttaatgc 1450
 ttaaattata tttcccttta ggctgtgata gtttttgaaa taaaatttaa 1500
 catttaaaaa aaaaaaaaa 1518

<210> 456
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 456
 Met Met Ala Leu Gly Ala Ala Gly Ala Thr Arg Val Phe Val Ala
 1 5 10 15
 Met Val Ala Ala Ala Leu Gly Gly His Pro Leu Leu Gly Val Ser
 20 25 30
 Ala Thr Leu Asn Ser Val Leu Asn Ser Asn Ala Ile Lys Asn Leu
 35 40 45
 Pro Pro Pro Leu Gly Gly Ala Ala Gly His Pro Gly Ser Ala Val
 50 55 60
 Ser Ala Ala Pro Gly Ile Leu Tyr Pro Gly Gly Asn Lys Tyr Gln
 65 70 75

Thr	Ile	Asp	Asn	Tyr	Gln	Pro	Tyr	Pro	Cys	Ala	Glu	Asp	Glu	Glu	80	85	90
Cys	Gly	Thr	Asp	Glu	Tyr	Cys	Ala	Ser	Pro	Thr	Arg	Gly	Gly	Asp	95	100	105
Ala	Gly	Val	Gln	Ile	Cys	Leu	Ala	Cys	Arg	Lys	Arg	Arg	Lys	Arg	110	115	120
Cys	Met	Arg	His	Ala	Met	Cys	Cys	Pro	Gly	Asn	Tyr	Cys	Lys	Asn	125	130	135
Gly	Ile	Cys	Val	Ser	Ser	Asp	Gln	Asn	His	Phe	Arg	Gly	Glu	Ile	140	145	150
Glu	Glu	Thr	Ile	Thr	Glu	Ser	Phe	Gly	Asn	Asp	His	Ser	Thr	Leu	155	160	165
Asp	Gly	Tyr	Ser	Arg	Arg	Thr	Thr	Leu	Ser	Ser	Lys	Met	Tyr	His	170	175	180
Thr	Lys	Gly	Gln	Glu	Gly	Ser	Val	Cys	Leu	Arg	Ser	Ser	Asp	Cys	185	190	195
Ala	Ser	Gly	Leu	Cys	Cys	Ala	Arg	His	Phe	Trp	Ser	Lys	Ile	Cys	200	205	210
Lys	Pro	Val	Leu	Lys	Glu	Gly	Gln	Val	Cys	Thr	Lys	His	Arg	Arg	215	220	225
Lys	Gly	Ser	His	Gly	Leu	Glu	Ile	Phe	Gln	Arg	Cys	Tyr	Cys	Gly	230	235	240
Glu	Gly	Leu	Ser	Cys	Arg	Ile	Gln	Lys	Asp	His	His	Gln	Ala	Ser	245	250	255
Asn	Ser	Ser	Arg	Leu	His	Thr	Cys	Gln	Arg	His					260	265	

<210> 457
 <211> 638
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 30, 123, 133, 139, 180, 214, 259, 282, 308, 452, 467, 471, 473,
 509, 556
 <223> unknown base

 <400> 457
 tgtgttttccc tgcagtcaga atttgggacn gcaggggttc ccggacctga 50
 ttttgcagcg gaacgggaag gttttgtggg acccaggttg aaatgacggt 100
 catttttttt tctttctcct tcnngagtcc ttntgagang atggtttttg 150
 gcgcagcggg agctaaccgc gttttttgtn gcgatggtag cggcggtttt 200

ttgttaaatt tttactcccc aggctgttca cactgccatg atttagctcc 900
 cacatggaga gacttttgcta aagaagtgga tgggttactt cgaattggag 950
 ctgttaactg tggatgatgat agaatgcttt gccgaatgaa aggagtcaac 1000
 agctatccca gtctcttcat ttttcggtct ggaatggccc cagtgaaata 1050
 tcatggagac agatcaaagg agagtttagt gagttttgca atgcagcatg 1100
 ttagaagtac agtgacagaa ctttgacag gaaattttgt caactccata 1150
 caaactgctt ttgctgctgg tattggctgg ctgatcactt tttgttcaaa 1200
 aggaggagat tgtttgactt cacagacacg actcaggctt agtggcatgt 1250
 tgtttctcaa ctcatggat gctaaagaaa tatatttgga agtaatacat 1300
 aatcttccag attttgaact actttcgga aacacactag aggatcgttt 1350
 ggctcatcat cgggtgctgt tattttttca ttttgaaaa aatgaaaatt 1400
 caaatgatcc tgagctgaaa aaactaaaaa ctctacttaa aaatgatcat 1450
 attcaagttg gcaggtttga ctgttctct gcaccagaca tctgtagtaa 1500
 tctgtatgtt tttcagccgt ctctagcagt atttaaagga caaggaacca 1550
 aagaatatga aattcatcat ggaaagaaga ttctatatga tatacttgcc 1600
 tttgccaaag aaagtgtgaa ttctcatgtt accacgcttg gacctcaaaa 1650
 ttttctgoc aatgacaaag aaccatggct tgttgatttc tttgccccct 1700
 ggtgtccacc atgtcgagct ttactaccag agttacgaag agcatcaaatt 1750
 cttctttatg gtcagcttaa gtttggtaca ctagattgta cagttcatga 1800
 gggactctgt aacatgtata acattcaggc ttatccaaca acagtgggtat 1850
 tcaaccagtc caacattcat gagtatgaag gacatcactc tgctgaacaa 1900
 atcttgaggt tcatagagga tcttatgaat ccttcagtgg tctcccttac 1950
 acccaccacc ttcaacgaac tagttacaca aagaaaacac aacgaagtct 2000
 ggatgggttga tttctattct ccgtgggtgc atccttgcca agtcttaattg 2050
 ccagaatgga aaagaatggc ccggacatta actggactga tcaacgtggg 2100
 cagtatagat tgccaacagt atcattcttt ttgtgccag gaaaacgttc 2150
 aaagataccc tgagataaga ttttttcccc caaatcaaa taaagcttat 2200
 cagtatcaca gttacaatgg ttggaatagg gatgcttatt ccctgagaat 2250
 ctgggggtcta ggattttttac ctcaagtatc cacagatcta acacctcaga 2300

ctttcagtga aaaagttcta caagggaata atcattgggt gattgatttc 2350
tatgctcctt ggtgtggacc ttgccagaat tttgctccag aatttgagct 2400
cttggttagg atgattaaag gaaaagtga agctggaaaa gtagactgtc 2450
aggcttatgc tcagacatgc cagaaagctg ggatcagggc ctatccaact 2500
gttaagtttt atttctacga aagagcaaag agaaattttc aagaagagca 2550
gataaatacc agagatgcaa aagcaatcgc tgccttaata agtgaaaaat 2600
tggaactctt ccgaaatcaa ggcaagagga ataaggatga actttgataa 2650
tggtgaagat gaagaaaaag tttaaaagaa attctgacag atgacatcag 2700
aagacaccta tttagaatgt tacatttatg atgggaatga atgaacatta 2750
tcttagactt gcagttgtac tgccagaatt atctacagca ctggtgtaaa 2800
agaagggctt gcaaactttt tctgtaaagg gccggtttat aaatatttta 2850
gactttgcag gctataatat atgggttcaca catgagaaca agaataagag 2900
catcatgtat tctttgttat ttgcttttaa caacctttaa aaaatattaa 2950
aacgattcct agctcagagc catacaaaag taggctggat tcagtccatg 3000
gaccatagat tgctgtcccc ctgcacggac ttataatgtt tcagggtggct 3050
ggcttgaaca tgagtctgct gtgctatcta cataaatgtc taagttgtat 3100
aaagtccact ttcccttcac gttttttggc tgacctgaaa agaggtaact 3150
tagtttttgg tcaactgttc tcctaaaaat gctatcccta accatatatt 3200
tatatttcgt tttaaaaaca cccatgatgt ggcacagtaa acaaaccctg 3250
ttatgctgta ttattatgag gagattcttc attgttttct ttcctttcca 3300
aaggttgaaa aaatgctttt aatttttcac agccgagaaa cagtgcagca 3350
gtatatgtgc acacagtaag tacacaaatt tgagcaacag taagtgcaca 3400
aattctgtag tttgctgtat catccaggaa aacctgaggg aaaaaatta 3450
tagcaattaa ctgggcattg tagagtatcc taaatatgtt atcaagtatt 3500
tagagttcta ttttttaaag atatatgtgt tcatgtattt totgaaattg 3550
ctttcataga aattttccca ctgatagttg atttttgagg catctaatat 3600
ttacatattt gccttctgaa ctttgttttg acctgtatcc tttatttaca 3650
ttgggttttt ctttcatagt tttggttttt cactcctgtc cagtctattt 3700
attattcaaa taggaaaaat tactttacag gttgttttac tgtagcttat 3750

aatgatactg tagttattcc agttactagt ttactgtcag agggctgcct 3800
 ttttcagata aatattgaca taataactga agttattttt ataagaaaat 3850
 caagtatata aatctaggaa agggatcttc tagtttctgt gttgtttaga 3900
 ctcaaagaat cacaatttg tcagtaacat gtagttgttt agttataatt 3950
 cagagtgtac agaatggtaa aaattccaat cagtcaaaag aggtcaatga 4000
 attaaaaggc ttgcaacttt ttcaaaaaaa aaaaaaaaaa 4040

<210> 459

<211> 747

<212> PRT

<213> Homo sapiens

<400> 459

Met	Gly	Val	Trp	Leu	Asn	Lys	Asp	Asp	Tyr	Ile	Arg	Asp	Leu	Lys	1	5	10	15
Arg	Ile	Ile	Leu	Cys	Phe	Leu	Ile	Val	Tyr	Met	Ala	Ile	Leu	Val	20	25	30	
Gly	Thr	Asp	Gln	Asp	Phe	Tyr	Ser	Leu	Leu	Gly	Val	Ser	Lys	Thr	35	40	45	
Ala	Ser	Ser	Arg	Glu	Ile	Arg	Gln	Ala	Phe	Lys	Lys	Leu	Ala	Leu	50	55	60	
Lys	Leu	His	Pro	Asp	Lys	Asn	Pro	Asn	Asn	Pro	Asn	Ala	His	Gly	65	70	75	
Asp	Phe	Leu	Lys	Ile	Asn	Arg	Ala	Tyr	Glu	Val	Leu	Lys	Asp	Glu	80	85	90	
Asp	Leu	Arg	Lys	Lys	Tyr	Asp	Lys	Tyr	Gly	Glu	Lys	Gly	Leu	Glu	95	100	105	
Asp	Asn	Gln	Gly	Gly	Gln	Tyr	Glu	Ser	Trp	Asn	Tyr	Tyr	Arg	Tyr	110	115	120	
Asp	Phe	Gly	Ile	Tyr	Asp	Asp	Asp	Pro	Glu	Ile	Ile	Thr	Leu	Glu	125	130	135	
Arg	Arg	Glu	Phe	Asp	Ala	Ala	Val	Asn	Ser	Gly	Glu	Leu	Trp	Phe	140	145	150	
Val	Asn	Phe	Tyr	Ser	Pro	Gly	Cys	Ser	His	Cys	His	Asp	Leu	Ala	155	160	165	
Pro	Thr	Trp	Arg	Asp	Phe	Ala	Lys	Glu	Val	Asp	Gly	Leu	Leu	Arg	170	175	180	
Ile	Gly	Ala	Val	Asn	Cys	Gly	Asp	Asp	Arg	Met	Leu	Cys	Arg	Met	185	190	195	
Lys	Gly	Val	Asn	Ser	Tyr	Pro	Ser	Leu	Phe	Ile	Phe	Arg	Ser	Gly				

Ser	Ala	Glu	Gln	Ile	Leu	Glu	Phe	Ile	Glu	Asp	Leu	Met	Asn	Pro	500	505	510
Ser	Val	Val	Ser	Leu	Thr	Pro	Thr	Thr	Phe	Asn	Glu	Leu	Val	Thr	515	520	525
Gln	Arg	Lys	His	Asn	Glu	Val	Trp	Met	Val	Asp	Phe	Tyr	Ser	Pro	530	535	540
Trp	Cys	His	Pro	Cys	Gln	Val	Leu	Met	Pro	Glu	Trp	Lys	Arg	Met	545	550	555
Ala	Arg	Thr	Leu	Thr	Gly	Leu	Ile	Asn	Val	Gly	Ser	Ile	Asp	Cys	560	565	570
Gln	Gln	Tyr	His	Ser	Phe	Cys	Ala	Gln	Glu	Asn	Val	Gln	Arg	Tyr	575	580	585
Pro	Glu	Ile	Arg	Phe	Phe	Pro	Pro	Lys	Ser	Asn	Lys	Ala	Tyr	Gln	590	595	600
Tyr	His	Ser	Tyr	Asn	Gly	Trp	Asn	Arg	Asp	Ala	Tyr	Ser	Leu	Arg	605	610	615
Ile	Trp	Gly	Leu	Gly	Phe	Leu	Pro	Gln	Val	Ser	Thr	Asp	Leu	Thr	620	625	630
Pro	Gln	Thr	Phe	Ser	Glu	Lys	Val	Leu	Gln	Gly	Lys	Asn	His	Trp	635	640	645
Val	Ile	Asp	Phe	Tyr	Ala	Pro	Trp	Cys	Gly	Pro	Cys	Gln	Asn	Phe	650	655	660
Ala	Pro	Glu	Phe	Glu	Leu	Leu	Ala	Arg	Met	Ile	Lys	Gly	Lys	Val	665	670	675
Lys	Ala	Gly	Lys	Val	Asp	Cys	Gln	Ala	Tyr	Ala	Gln	Thr	Cys	Gln	680	685	690
Lys	Ala	Gly	Ile	Arg	Ala	Tyr	Pro	Thr	Val	Lys	Phe	Tyr	Phe	Tyr	695	700	705
Glu	Arg	Ala	Lys	Arg	Asn	Phe	Gln	Glu	Glu	Gln	Ile	Asn	Thr	Arg	710	715	720
Asp	Ala	Lys	Ala	Ile	Ala	Ala	Leu	Ile	Ser	Glu	Lys	Leu	Glu	Thr	725	730	735
Leu	Arg	Asn	Gln	Gly	Lys	Arg	Asn	Lys	Asp	Glu	Leu				740	745	

<210> 460

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 460
actccccagg ctgttcacac tgcc 24

<210> 461
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 461
gatcagccag ccaataccag cagc 24

<210> 462
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 462
gtggtgatga tagaatgctt tgccgaatga aaggagtcaa cagctatccc 50

<210> 463
<211> 1818
<212> DNA
<213> Homo sapiens

<400> 463
agacagtacc tcctccctag gactacacaa ggactgaacc agaaggaaga 50
ggacagagca aagccatgaa catcatccta gaaatccttc tgcttctgat 100
caccatcatc tactcctact tggagtcggt ggtgaagttt ttcattcctc 150
agaggagaaa atctgtggct ggggagattg ttctcattac tggagctggg 200
catggaatag gcaggcagac tacttatgaa ttgcaaaac gacagagcat 250
attggttctg tgggatatta ataagcgcg tgtggaggaa actgcagctg 300
agtgccgaaa actaggcgtc actgcgcatg cgtatgtggt agactgcagc 350
aacagagaag agatctatcg ctctctaaat cagggtgaaga aagaagtggg 400
tgatgtaaca atcgtggtga ataatgctgg gacagtatat ccagccgata 450
ttctcagcac caaggatgaa gagattacca agacatttga ggtcaacatc 500
ctaggacatt tttggatcac aaaagcactt cttccatcga tgatggagag 550
aaatcatggc cacatcgtca cagtggcttc agtgtgcggc cacgaaggga 600
ttccttacct catcccatat tgttcagca aatttgccgc tgttggtttt 650
cacagaggtc tgacatcaga acttcaggcc ttgggaaaaa ctggtatcaa 700

aacctcatgt ctctgccag tttttgtgaa tactgggttc accaaaaatc 750
 caagcacaag attatggcct gtattggaga cagatgaagt cgtaagaagt 800
 ctgatagatg gaataacttac caataagaaa atgatttttg ttccatcgta 850
 tatcaatata tttctgagac tacagaagtt tcttcctgaa cgcgccctcag 900
 cgattttaaa tcgtatgcag aatattcaat ttgaagcagt ggttggccac 950
 aaaatcaaaa tgaaatgaat aaataagctc cagccagaga tgtatgcatg 1000
 ataatgatata gaatagtttc gaatcaatgc tgcaaagctt tatttcacat 1050
 tttttcagtc ctgataatat taaaaacatt ggtttggcac tagcagcagt 1100
 caaacgaaca agattaatta cctgtcttcc tgtttctcaa gaatatttac 1150
 gtagtttttc ataggtctgt ttttcctttc atgcctctta aaaacttctg 1200
 tgcttacata aacatactta aaagggttttc tttaagatat tttatttttc 1250
 catttaaagg tggacaaaag ctacctccct aaaagtaaata acaaagagaa 1300
 cttattttaca cagggaaggt ttaagactgt tcaagtagca ttccaatctg 1350
 tagccatgcc acagaatata aacaagaaca cagaatgagt gcacagctaa 1400
 gagatcaagt ttcagcaggc agctttatct caacctggac atatttttaag 1450
 attcagcatt tgaaagattt ccctagcctc ttcttttttc attagcccaa 1500
 aacggtgcaa ctctattctg gactttatta cttgattctg tcttctgtat 1550
 aactctgaag tccacaaaaa gtggaccctc tatatttcct ccctttttat 1600
 agtcttataa gatacattat gaaagggtgac cgactctatt ttaaattctca 1650
 gaatttttaag ttctagcccc atgataacct ttttctttgt aattttatgct 1700
 ttcatatata cttgggtccca gagatgttta gacaatttta ggctcaaaaa 1750
 ttaaagctaa cacaggaaaa ggaactgtac tggctattac ataagaaaca 1800
 atggacccaa gagaagaa 1818

<210> 464
 <211> 300
 <212> PRT
 <213> Homo sapiens

<400> 464
 Met Asn Ile Ile Leu Glu Ile Leu Leu Leu Ile Thr Ile Ile
 1 5 10 15
 Tyr Ser Tyr Leu Glu Ser Leu Val Lys Phe Phe Ile Pro Gln Arg
 20 25 30

Arg	Lys	Ser	Val	Ala	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly		35	40	45
His	Gly	Ile	Gly	Arg	Gln	Thr	Thr	Tyr	Glu	Phe	Ala	Lys	Arg	Gln		50	55	60
Ser	Ile	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	Arg	Gly	Val	Glu	Glu		65	70	75
Thr	Ala	Ala	Glu	Cys	Arg	Lys	Leu	Gly	Val	Thr	Ala	His	Ala	Tyr		80	85	90
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Glu	Ile	Tyr	Arg	Ser	Leu	Asn		95	100	105
Gln	Val	Lys	Lys	Glu	Val	Gly	Asp	Val	Thr	Ile	Val	Val	Asn	Asn		110	115	120
Ala	Gly	Thr	Val	Tyr	Pro	Ala	Asp	Leu	Leu	Ser	Thr	Lys	Asp	Glu		125	130	135
Glu	Ile	Thr	Lys	Thr	Phe	Glu	Val	Asn	Ile	Leu	Gly	His	Phe	Trp		140	145	150
Ile	Thr	Lys	Ala	Leu	Leu	Pro	Ser	Met	Met	Glu	Arg	Asn	His	Gly		155	160	165
His	Ile	Val	Thr	Val	Ala	Ser	Val	Cys	Gly	His	Glu	Gly	Ile	Pro		170	175	180
Tyr	Leu	Ile	Pro	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe		185	190	195
His	Arg	Gly	Leu	Thr	Ser	Glu	Leu	Gln	Ala	Leu	Gly	Lys	Thr	Gly		200	205	210
Ile	Lys	Thr	Ser	Cys	Leu	Cys	Pro	Val	Phe	Val	Asn	Thr	Gly	Phe		215	220	225
Thr	Lys	Asn	Pro	Ser	Thr	Arg	Leu	Trp	Pro	Val	Leu	Glu	Thr	Asp		230	235	240
Glu	Val	Val	Arg	Ser	Leu	Ile	Asp	Gly	Ile	Leu	Thr	Asn	Lys	Lys		245	250	255
Met	Ile	Phe	Val	Pro	Ser	Tyr	Ile	Asn	Ile	Phe	Leu	Arg	Leu	Gln		260	265	270
Lys	Phe	Leu	Pro	Glu	Arg	Ala	Ser	Ala	Ile	Leu	Asn	Arg	Met	Gln		275	280	285
Asn	Ile	Gln	Phe	Glu	Ala	Val	Val	Gly	His	Lys	Ile	Lys	Met	Lys		290	295	300

<210> 465
 <211> 1547
 <212> DNA
 <213> Homo sapiens

項目	単位	数値
1. 総人口	人	1,234,567
2. 男性人口	人	612,345
3. 女性人口	人	622,222
4. 総世帯数	世帯	234,567
5. 男性世帯数	世帯	112,345
6. 女性世帯数	世帯	122,222
7. 総就業人口	人	567,890
8. 男性就業人口	人	289,012
9. 女性就業人口	人	278,878
10. 総所得	円	123,456,789
11. 男性総所得	円	61,234,567
12. 女性総所得	円	62,222,222
13. 総消費	円	98,765,432
14. 男性総消費	円	49,876,543
15. 女性総消費	円	48,888,889
16. 総貯蓄	円	24,691,357
17. 男性総貯蓄	円	12,345,678
18. 女性総貯蓄	円	12,345,679
19. 総投資	円	15,789,012
20. 男性総投資	円	7,890,123
21. 女性総投資	円	7,898,889
22. 総貯蓄率	%	20.0
23. 男性総貯蓄率	%	20.0
24. 女性総貯蓄率	%	20.0
25. 総投資率	%	12.8
26. 男性総投資率	%	12.8
27. 女性総投資率	%	12.8
28. 総消費率	%	80.0
29. 男性総消費率	%	80.0
30. 女性総消費率	%	80.0
31. 総所得倍率	倍	1.2
32. 男性総所得倍率	倍	1.2
33. 女性総所得倍率	倍	1.2
34. 総消費倍率	倍	0.8
35. 男性総消費倍率	倍	0.8
36. 女性総消費倍率	倍	0.8
37. 総貯蓄率	%	20.0
38. 男性総貯蓄率	%	20.0
39. 女性総貯蓄率	%	20.0
40. 総投資率	%	12.8
41. 男性総投資率	%	12.8
42. 女性総投資率	%	12.8
43. 総消費率	%	80.0
44. 男性総消費率	%	80.0
45. 女性総消費率	%	80.0
46. 総所得倍率	倍	1.2
47. 男性総所得倍率	倍	1.2
48. 女性総所得倍率	倍	1.2
49. 総消費倍率	倍	0.8
50. 男性総消費倍率	倍	0.8
51. 女性総消費倍率	倍	0.8

Leu	Thr	Lys	Leu	Ala	Leu	Pro	Tyr	Leu	Arg	Lys	Ser	Gln	Gly	Asn
				125					130					135
Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly	Ala	Ile	Gly	Gln	Ala	Gln
				140					145					150
Ala	Val	Pro	Tyr	Val	Ala	Thr	Lys	Gly	Ala	Val	Thr	Ala	Met	Thr
				155					160					165
Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly	Val	Arg	Val	Asn
				170					175					180
Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp	Glu	Glu	Leu
				185					190					195
Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu	Gly	Met
				200					205					210
Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val	Gly
				215					220					225
Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
				230					235					240
Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys
				245					250					255
Lys	Ala	Ser	Arg	Ser	Thr	Pro	Val	Asp	Ala	Pro	Asp	Ile	Pro	Ser
				260					265					270

<210> 469
 <211> 687
 <212> DNA
 <213> Homo sapiens

<400> 469
 aggcgggcag cagctgcagg ctgaccttgc agcttggcgg aatggactgg 50
 cctcacaacc tgctgtttct tcttaccatt tccatcttcc tggggctggg 100
 ccagcccagg agccccaaaa gcaagaggaa ggggcaagg cggcctgggc 150
 ccctggcccc tggccctcac caggtgccac tggacctggt gtcacggatg 200
 aaaccgtatg cccgcatgga ggagtatgag aggaacatcg aggagatggt 250
 ggcccagctg aggaacagct cagagctggc ccagagaaaag tgtgagggtca 300
 acttgcagct gtggatgtcc aacaagagga gcctgtctcc ctggggctac 350
 agcatcaacc acgaccccag ccgtatcccc gtggacctgc cggaggcacg 400
 gtgcctgtgt ctgggctgtg tgaaccctt caccatgcag gaggaccgca 450
 gcatggtgag cgtgccggtg ttcagccagg ttcctgtgcg ccgccgcctc 500
 tgcccgccac cgccccgcac agggccttgc cgccagcgcg cagtcatgga 550

gaccatcgct gtgggctgca cctgcatctt ctgaatcacc tggcccagaa 600
gccaggccag cagcccagaga ccatactcct tgcacctttg tgccaagaaa 650
ggcctatgaa aagtaaacac tgacttttga aagcaag 687

<210> 470
<211> 180
<212> PRT
<213> Homo sapiens

<400> 470
Met Asp Trp Pro His Asn Leu Leu Phe Leu Leu Thr Ile Ser Ile
1 5 10 15
Phe Leu Gly Leu Gly Gln Pro Arg Ser Pro Lys Ser Lys Arg Lys
20 25 30
Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val
35 40 45
Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu
50 55 60
Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn
65 70 75
Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu
80 85 90
Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile
95 100 105
Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg
110 115 120
Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp
125 130 135
Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg
140 145 150
Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln
155 160 165
Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile Phe
170 175 180

<210> 471
<211> 2368
<212> DNA
<213> Homo sapiens

<400> 471
gcgcccgcag gcgtaggcgg ggtggccctt gcgtctcccg cttccttgaa 50
aaacccggcg ggcgagcgag gctgcgggcc ggccgctgcc cttccccaca 100

tgggaggatg gatcaacatt ctcttctaac ttatttcaga tcagaaccac 650
 agctacccaa gaaaacccat ctccaaattg tgtatggatt cacgtgtcag 700
 tcatttatga ccaactgtgt agtgtgccct catatagtat ttgtgagaag 750
 aagttttcaa tgtaagagga aggggtggaga aggagagaga aatatgtgag 800
 gtagtaagga ggacagaaaa cagaacagaa aagagtaaca gctgagggtca 850
 agataaatgc agaaaatggt tagagagctt ggccaactgt aatcttaacc 900
 aagaaattga agggagaggc tgtgatttct gtatttgtcg acctacaggt 950
 aggctagtat tttttttcta gttagtagat ccctagacat ggaatcaggg 1000
 cagccaagct tgagttttta ttttttattt atttattttt ttgagatagg 1050
 gtctcacttt gttaccagg ctggagtgc gtggcacaat ctcgactcac 1100
 tgcagctatc tctcgctca gccctcaag tagctgggac tacagggtgca 1150
 tgccaccatg ccaggctaatt ttttggtgtt tttttagtag actgggtttt 1200
 gccatgttga ccaagctggc ctctaactcc tgggcttaag tgatctgcc 1250
 gccttggcct cccaaagtgc tgggattaca gatgtgagcc accacacctg 1300
 gcccgaagct tgaattttca ttctgccatt gacttggcat ttaccttggg 1350
 taagccataa gogaatctta atttctggct ctatcagagt tgtttcatgc 1400
 tcaacaatgc cattgaagtg cacggtgtgt tgccacgatt tgacctcaa 1450
 cttctagcag tatatcagtt atgaactgag ggtgaaatat atttctgaat 1500
 agctaaatga agaaatggga aaaaatcttc accacagtca gagcaatttt 1550
 attattttca tcagtatgat cataattatg attatcatct tagtaaaaag 1600
 caggaaactcc tactttttct ttatcaatta aatagctcag agagtacatc 1650
 tgccatatct ctaatagaat cttttttttt tttttttttt tttgagacag 1700
 agtttcgctc ttgttgccca ggctggagtg caacggcacg atctcggtc 1750
 accgcaacct cgcgcctcg ggttcaagca attctcctgc ctcagcctcc 1800
 caagtagctg ggattacagt caggcaccac cacaccggc taattttgta 1850
 tttttttagt agagacaggg tttctccatg tcggtcaggg tagtcccgaa 1900
 ctctgacct caagtgatct gcctgcctcg gcctcccaag tgctgggatt 1950
 acaggcgtga gccactgcac ccagcctaga atcttgtata atatgtaatt 2000
 gtagggaaac tgctctcata ggaaagtttt ctgcttttta aatacaaaaa 2050

tacataaaaaa tacataaaat ctgatgatga atataaaaaa gtaaccaacc 2100
tcattggaac aagtattaac attttggaaat atgttttatt agttttgtga 2150
tgtactgttt tacaatTTTT accatTTTT tCagtaatta ctgtaaaatg 2200
gtattattgg aatgaaacta tatttcctca tgtgctgatt tgtcttattt 2250
ttttcatact ttcccactgg tgctatTTTT atttccaatg gatatttctg 2300
tattactagg gaggcattta cagtccctca atgttgatta atatgtgaaa 2350
agaaattgta ccaatTTTtac taaattatgc agttttaaag ggatgatttt 2400
atgttatgtg gatttcattt caataaaaaa aaactcttat caaaaaaaaaa 2450
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2478

<210> 477

<211> 201

<212> PRT

<213> Homo sapiens

<400> 477

Met	Glu	Tyr	His	Pro	Asp	Leu	Glu	Asn	Leu	Asp	Glu	Asp	Gly	Tyr	1	5	10	15
Thr	Gln	Leu	His	Phe	Asp	Ser	Gln	Ser	Asn	Thr	Arg	Ile	Ala	Val	20	25	30	
Val	Ser	Glu	Lys	Gly	Ser	Cys	Ala	Ala	Ser	Pro	Pro	Trp	Arg	Leu	35	40	45	
Ile	Ala	Val	Ile	Leu	Gly	Ile	Leu	Cys	Leu	Val	Ile	Leu	Val	Ile	50	55	60	
Ala	Val	Val	Leu	Gly	Thr	Met	Gly	Val	Leu	Ser	Ser	Pro	Cys	Pro	65	70	75	
Pro	Asn	Trp	Ile	Ile	Tyr	Glu	Lys	Ser	Cys	Tyr	Leu	Phe	Ser	Met	80	85	90	
Ser	Leu	Asn	Ser	Trp	Asp	Gly	Ser	Lys	Arg	Gln	Cys	Trp	Gln	Leu	95	100	105	
Gly	Ser	Asn	Leu	Leu	Lys	Ile	Asp	Ser	Ser	Asn	Glu	Leu	Gly	Phe	110	115	120	
Ile	Val	Lys	Gln	Val	Ser	Ser	Gln	Pro	Asp	Asn	Ser	Phe	Trp	Ile	125	130	135	
Gly	Leu	Ser	Arg	Pro	Gln	Thr	Glu	Val	Pro	Trp	Leu	Trp	Glu	Asp	140	145	150	
Gly	Ser	Thr	Phe	Ser	Ser	Asn	Leu	Phe	Gln	Ile	Arg	Thr	Thr	Ala	155	160	165	
Thr	Gln	Glu	Asn	Pro	Ser	Pro	Asn	Cys	Val	Trp	Ile	His	Val	Ser				

Val Ile Tyr Asp Gln Leu Cys Ser Val Pro Ser Tyr Ser Ile Cys
 185 190 195

Glu Lys Lys Phe Ser Met
 200

<210> 478
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 478
 gtccacagac agtcatctca ggagcag 27

<210> 479
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 479
 acaagtgtct tcccaacctg 20

<210> 480
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 480
 atcctcccag agccatggta cctc 24

<210> 481
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 481
 ccaaggatag ctgttggttc agagaaagga tcgtgtgctg catctcctcc 50

t 51

<210> 482
 <211> 3819
 <212> DNA
 <213> Homo sapiens

<400> 482

ggaaggggag gagcaggcca cacaggcaca ggccggtgag ggacctgccc 50
agacctggag ggtctcgctc tgtcacacag gctggagtgc agtgggtgtga 100
tcttggtca tctaacctc cacctcccgg gttcaagtga ttctcatgcc 150
tcagcctccc gagtagctgg gattacaggt ggtgacttcc aagagtgact 200
ccgtcggagg aaaatgactc cccagtcgct gctgcagacg aactgttcc 250
tgctgagtct gctcttctg gtccaagggt cccacggcag gggccacagg 300
gaagactttc gcttctgcag ccagcggaac cagacacaca ggagcagcct 350
ccactacaaa cccacaccag acctgcgcat ctccatcgag aactccgaag 400
aggccctcac agtccatgcc cctttccctg cagcccaccc tgcttcccga 450
tccttccctg accccagggg cctctaccac ttctgcctct actggaaccg 500
acatgctggg agattacatc ttctctatgg caagcgtgac ttcttgctga 550
gtgacaaagc ctctagcctc ctctgcttcc agcaccagga ggagagcctg 600
gctcagggcc ccccgctgtt agccacttct gtcacctcct ggtggagccc 650
tcagaacatc agcctgcccag gtgccgccag ctacacctc tccttccaca 700
gtcctcccca cacggccgct cacaatgcct cgggtggacat gtgcgagctc 750
aaaagggacc tccagctgct cagccagttc ctgaagcatc cccagaaggc 800
ctcaaggagg ccctcggctg ccccgccag ccagcagttg cagagcctgg 850
agtcgaaact gacctctgtg agattcatgg gggacatggt gtccttcgag 900
gaggaccgga tcaacgccac ggtgtggaag ctccagccc cagccggcct 950
ccaggacctg cacatccact cccggcagga ggaggagcag agcgagatca 1000
tgagagtactc ggtgctgctg cctcgaacac tcttccagag gacgaaaggc 1050
cggagcgggg aggctgagaa gagactcctc ctggtggact tcagcagcca 1100
agccctgttc caggacaaga attccagcca agtcctgggt gagaaggtct 1150
tggggattgt ggtacagaac accaaagtag ccaacctcac ggagcccgtg 1200
gtgctcactt tccagacca gctacagccg aagaatgtga ctctgcaatg 1250
tgtgttctgg gttgaagacc ccacattgag cagcccgggg cattggagca 1300
gtgctgggtg tgagaccgtc aggagagaaa cccaacatc ctgcttctgc 1350
aaccacttga cctactttgc agtgctgatg gtctcctcgg tggaggtgga 1400
cgccgtgcac aagcactacc tgagcctcct ctctacgtg ggctgtgtcg 1450

tctctgccct ggccctgcctt gtcaccattg ccgcctacct ctgctccagg 1500
 gtgcccctgc cgtgcaggag gaaacctcgg gactacacca tcaaggtgca 1550
 catgaacctg ctgctggccg tcttcctgct ggacacgagc ttcttctca 1600
 gcgagccggt ggccctgaca ggctctgagg ctggctgccg agccagtgcc 1650
 atcttcctgc acttctccct gctcacctgc ctttcctgga tgggcctoga 1700
 ggggtacaac ctctaccgac tcgtggtgga ggtctttggc acctatgtcc 1750
 ctggctacct actcaagctg agcgccatgg gctggggctt ccccatcttt 1800
 ctggtgacgc tgggtggccct ggtggatgtg gacaactatg gccccatcat 1850
 cttggctgtg cataggactc cagagggcgt catctaccct tccatgtgct 1900
 ggatccggga ctccctggtc agctacatca ccaacctggg cctcttcagc 1950
 ctggtgtttc tgttcaacat ggccatgcta gccaccatgg tgggtgcagat 2000
 cctgcggctg cgccccaca cccaaaagtg gtcacatgtg ctgacactgc 2050
 tgggcctcag cctggctcct ggccctgcct gggccttgat cttcttctcc 2100
 tttgcttctg gcaccttcca gcttgctgc ctctacctt tcagcatcat 2150
 caoctccttc caaggcttcc tcctcttcat ctggtactgg tccatgcggc 2200
 tgcaggcccg ggggtggccc tccctctga agagcaactc agacagcgcc 2250
 aggtcctcca tcagctcggg cagcacctcg tccagccgca tctaggcctc 2300
 cagccacact gccatgtga tgaagcagag atgcggcctc gtcgcacact 2350
 gcctgtggcc cccgagccag gccagcccc aggcagtcg gccgcagact 2400
 ttggaaagcc caacgacct ggagagatgg gccgttgcca tgggtggacgg 2450
 actcccgggc tgggcttttg aattggcctt ggggactact cggctctcac 2500
 tcagctccca cgggactcag aagtgcgccg ccatgctgcc tagggactg 2550
 tccccacatc tgtcccaacc cagctggagg cctggtctct ccttacaacc 2600
 cctgggcccc gccctcattg ctgggggcca ggccttgat cttgagggtc 2650
 tggcacatcc ttaatcctgt gccctgcct gggacagaaa tgtggctcca 2700
 gttgctctgt ctctcgtggt caccctgagg gcactctgca tcctctgtca 2750
 ttttaacctc aggtggcacc cagggcgaat ggggccagc gcagaccttc 2800
 agggccagag ccctggcgga ggagaggccc tttgccagga gcacagcagc 2850
 agctcgcta cctctgagcc caggccccct cctccctca gccccccagt 2900

cctccctcca tcttccctgg ggttctctc ctctcccagg gcctccttgc 2950
 tccttcgttc acagctgggg gtccccgatt ccaatgctgt tttttgggga 3000
 gtggtttcca ggagctgcct ggtgtctgct gtaaagtgtt gtctactgca 3050
 caagcctcgg cctgcccctg agccaggctc ggtaccgatg cgtgggctgg 3100
 gctagggtccc tctgtccatc tgggcctttg tatgagctgc attgcccttg 3150
 ctcaccctga ccaagcacac gcctcagagg ggccctcagc ctctcctgaa 3200
 gccctcttgt ggcaagaact gtggaccatg ccagtcccgt ctggtttcca 3250
 tcccaccact ccaaggactg agactgacct cctctggtga cactggccta 3300
 gagcctgaca ctctoctaag aggttctctc caagcccca aatagctcca 3350
 ggcgcctcgg gccgcccato atggttaatt ctgtccaaca aacacacacg 3400
 ggtagattgc tggcctgttg taggtggtag ggacacagat gaccgacctg 3450
 gtcactctc ctgccaacat tcagtctggt atgtgaggcg tgcgtgaagc 3500
 aagaactcct ggagctacag ggacaggag ccatcattcc tgcctgggaa 3550
 tcctggaaga ctctctgcag gagtcagcgt tcaatcttga ccttgaagat 3600
 ggaaggatg ttctttttac gtaccaattc ttttgtctt tgatattaaa 3650
 aagaagtaca tgttcattgt agagaatttg gaaactgtag aagagaatca 3700
 agaagaaaaa taaaaatcag ctgttgtaat cgcctagcaa aaaaaaaaaa 3750
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3800
 aaaaaaaaaa aaaaaaaaaa 3819

<210> 483
 <211> 693
 <212> PRT
 <213> Homo sapiens

<400> 483
 Met Thr Pro Gln Ser Leu Leu Gln Thr Thr Leu Phe Leu Leu Ser
 1 5 10 15
 Leu Leu Phe Leu Val Gln Gly Ala His Gly Arg Gly His Arg Glu
 20 25 30
 Asp Phe Arg Phe Cys Ser Gln Arg Asn Gln Thr His Arg Ser Ser
 35 40 45
 Leu His Tyr Lys Pro Thr Pro Asp Leu Arg Ile Ser Ile Glu Asn
 50 55 60
 Ser Glu Glu Ala Leu Thr Val His Ala Pro Phe Pro Ala Ala His
 65 70 75

Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu Lys Ser Asn
 665 670 675

Ser Asp Ser Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr Ser Ser
 680 685 690

Ser Arg Ile

<210> 484
 <211> 516
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 68, 70, 84, 147
 <223> unknown base

<400> 484
 tgcctggcct gccttgtcaa caatgccgct tactctgctt ccaggttgcc 50
 ctgccttgca gaggaanncn tcgggactac acctcaagt gcacatgaac 100
 ctgctgctgg ccgtcttctt gctggacacg agcttcctgc tcagcgnagc 150
 cgggtggccct gacaggtctt gaaggctggc tgccgagcca gtgccatctt 200
 cctgcacttc tcctgctcac ctgcctttcc tggatggggc tcgaggggta 250
 caacctctac cgactcgtgg tggaggtctt tggcacctat gtccctggct 300
 acctactcaa gctgagcgcc atgggctggg gcttccccat ctttctggtg 350
 acgctggtgg ccctggtgga tgtggacaac tatggcccca tcattctggc 400
 tgtgcatagg actccagagg gcgtcatcta cccttccatg tgctggatcc 450
 gggactccct ggtcagctac atcaccaacc tgggcctctt cagcctgggtg 500
 tttctgttca acatgg 516

<210> 485
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 485
 ggcattggag cagtgcctgg tg 22

<210> 486
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 486
tggaggccta gatgcggctg gacg 24

<210> 487
<211> 2849
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 2715
<223> unknown base

<400> 487
cggacgcgtg ggcggacgcg tgggcggacg cgtgggcgga cgcgtgggct 50
ggttcaggctc caggttttgc tttgatcctt ttcaaaaact ggagacacag 100
aagagggctc taggaaaaag ttttgatgg gattatgtgg aaactaccct 150
gcgattctct gctgccagag caggctcggc gcttccaccc cagtgcagcc 200
ttcccctggc ggtggtgaaa gagactcggg agtcgctgct tccaaagtgc 250
ccgccgtgag tgagctctca cccagtcag ccaaatgagc ctcttcgggc 300
ttctcctgct gacatctgcc ctggccggcc agagacaggg gactcaggcg 350
gaatccaacc tgagtagtaa attccagttt tccagcaaca aggaacagaa 400
cggagtacaa gatcctcagc atgagagaat tattactgtg tctactaatg 450
gaagtattca cagcccaagg tttcctcata cttatccaag aaatacggctc 500
ttggtatgga gattagtagc agtagaggaa aatgtatgga tacaacttac 550
gtttgatgaa agatttgggc ttgaagaccc agaagatgac atatgcaagt 600
atgattttgt agaagttgag gaaccagtg atggaactat attagggcgc 650
tggtgtggtt ctggtactgt accaggaaaa cagatttcta aaggaaatca 700
aattaggata agatttgtat ctgatgaata ttttccttct gaaccagggt 750
tctgcatcca ctacaacatt gtcatgccac aattcacaga agctgtgagt 800
ccttcagtgc tacccttctc agctttgcca ctggacctgc ttaataatgc 850
tataactgcc tttagtagct tggaagacct tattcgatat cttgaaccag 900
agagatggca gttggactta gaagatctat ataggccaac ttggcaactt 950
cttggcaagg cttttgtttt tggaagaaaa tccagagtgg tggatctgaa 1000
ccttctaaca gaggaggtaa gattatacag ctgcacacct cgtaacttct 1050

cagtggtccat	aagggaagaa	ctaaagagaa	ccgataccat	tttctggcca	1100
ggttgtctcc	tggttaaacg	ctgtggtggg	aactgtgcct	gttgtctcca	1150
caattgcaat	gaatgtcaat	gtgtcccaag	caaagttact	aaaaaatacc	1200
acgaggtcct	tcagttgaga	ccaaagaccg	gtgtcagggg	attgcacaaa	1250
tcactcaccg	acgtggccct	ggagcaccat	gaggagtgtg	actgtgtgtg	1300
cagaggggagc	acaggaggat	agccgcacat	ccaccagcag	ctcttgccca	1350
gagctgtgca	gtgcagtggc	tgattctatt	agagaacgta	tgcgttatct	1400
ccatccttaa	tctcagttgt	ttgcttcaag	gacctttcat	cttcaggatt	1450
tacagtgcac	tctgaaagag	gagacatcaa	acagaattag	gagttgtgca	1500
acagctcttt	tgagaggagg	cctaaaggac	aggagaaaag	gtcttcaatc	1550
gtggaaagaa	aattaaatgt	tgtattaaat	agatcaccag	ctagtttcag	1600
agttaccatg	tacgtattcc	actagctggg	ttctgtattt	cagttctttc	1650
gatacggctt	agggtaatgt	cagtacagga	aaaaaactgt	gcaagtgagc	1700
acctgattcc	gttgccctgc	ttaaactctaa	agctccatgt	cctgggccta	1750
aaatcgtata	aaatctggat	tttttttttt	ttttttgctc	atattcacat	1800
atgtaaacca	gaacattcta	tgtactacaa	acctggtttt	taaaaaggaa	1850
ctatgttgct	atgaattaaa	cttgtgtcat	gctgatagga	cagactggat	1900
ttttcatatt	tcttattaaa	atctctgcca	tttagaagaa	gagaactaca	1950
ttcatggttt	ggaagagata	aacctgaaaa	gaagagtggc	cttatcttca	2000
ctttatcgat	aagtcagttt	atctgtttca	ttgtgtacat	ttttatatct	2050
tccttttgac	attataactg	ttggcttttc	taatcttggt	aaatatatct	2100
atttttacca	aaggatattt	atattctttt	ttatgacaac	ttagatcaac	2150
tattttttagc	ttggtaaatt	tttctaaaca	caattgttat	agccagagga	2200
acaaagatga	tataaaatat	tgttgctctg	acaaaaatac	atgtatttca	2250
ttctcgtatg	gtgctagagt	tagattaatc	tgcattttta	aaaactgaat	2300
tggaatagaa	ttggtaagtt	gcaaagactt	tttgaaaata	attaaattat	2350
catatcttcc	attcctgtta	ttggagatga	aaataaaaag	caacttatga	2400
aagtagacat	tcagatccag	ccattactaa	cctattcctt	ttttggggaa	2450
atctgagcct	agctcagaaa	aacataaagc	accttgaaaa	agacttggca	2500

gcttcctgat aaagcgtgct gtgctgtgca gtaggaacac atcctattta 2550
 ttgtgatgtt gtggttttat tatcttaaac tctgttccat acacttgat 2600
 aaatacatgg atatttttat gtacagaagt atgtctctta accagttcac 2650
 ttattgtact ctggcaattt aaaagaaaat cagtaaaata ttttgcttgt 2700
 aaaatgctta atatngtgcc taggttatgt ggtgactatt tgaatcaaaa 2750
 atgtattgaa tcatcaaata aaagaatgtg gctattttgg ggagaaaatt 2800
 aaaaaaaaaa aaaaaaaaaa aggtttaggg ataacagggt aatgoggcc 2849

<210> 488

<211> 345

<212> PRT

<213> Homo sapiens

<400> 488

Met	Ser	Leu	Phe	Gly	Leu	Leu	Leu	Leu	Thr	Ser	Ala	Leu	Ala	Gly	1	5	10	15
Gln	Arg	Gln	Gly	Thr	Gln	Ala	Glu	Ser	Asn	Leu	Ser	Ser	Lys	Phe	20	25	30	
Gln	Phe	Ser	Ser	Asn	Lys	Glu	Gln	Asn	Gly	Val	Gln	Asp	Pro	Gln	35	40	45	
His	Glu	Arg	Ile	Ile	Thr	Val	Ser	Thr	Asn	Gly	Ser	Ile	His	Ser	50	55	60	
Pro	Arg	Phe	Pro	His	Thr	Tyr	Pro	Arg	Asn	Thr	Val	Leu	Val	Trp	65	70	75	
Arg	Leu	Val	Ala	Val	Glu	Glu	Asn	Val	Trp	Ile	Gln	Leu	Thr	Phe	80	85	90	
Asp	Glu	Arg	Phe	Gly	Leu	Glu	Asp	Pro	Glu	Asp	Asp	Ile	Cys	Lys	95	100	105	
Tyr	Asp	Phe	Val	Glu	Val	Glu	Glu	Pro	Ser	Asp	Gly	Thr	Ile	Leu	110	115	120	
Gly	Arg	Trp	Cys	Gly	Ser	Gly	Thr	Val	Pro	Gly	Lys	Gln	Ile	Ser	125	130	135	
Lys	Gly	Asn	Gln	Ile	Arg	Ile	Arg	Phe	Val	Ser	Asp	Glu	Tyr	Phe	140	145	150	
Pro	Ser	Glu	Pro	Gly	Phe	Cys	Ile	His	Tyr	Asn	Ile	Val	Met	Pro	155	160	165	
Gln	Phe	Thr	Glu	Ala	Val	Ser	Pro	Ser	Val	Leu	Pro	Pro	Ser	Ala	170	175	180	
Leu	Pro	Leu	Asp	Leu	Leu	Asn	Asn	Ala	Ile	Thr	Ala	Phe	Ser	Thr	185	190	195	

Leu	Glu	Asp	Leu	Ile	Arg	Tyr	Leu	Glu	Pro	Glu	Arg	Trp	Gln	Leu	
				200					205					210	
Asp	Leu	Glu	Asp	Leu	Tyr	Arg	Pro	Thr	Trp	Gln	Leu	Leu	Gly	Lys	
				215					220					225	
Ala	Phe	Val	Phe	Gly	Arg	Lys	Ser	Arg	Val	Val	Asp	Leu	Asn	Leu	
				230					235					240	
Leu	Thr	Glu	Glu	Val	Arg	Leu	Tyr	Ser	Cys	Thr	Pro	Arg	Asn	Phe	
				245					250					255	
Ser	Val	Ser	Ile	Arg	Glu	Glu	Leu	Lys	Arg	Thr	Asp	Thr	Ile	Phe	
				260					265					270	
Trp	Pro	Gly	Cys	Leu	Leu	Val	Lys	Arg	Cys	Gly	Gly	Asn	Cys	Ala	
				275					280					285	
Cys	Cys	Leu	His	Asn	Cys	Asn	Glu	Cys	Gln	Cys	Val	Pro	Ser	Lys	
				290					295					300	
Val	Thr	Lys	Lys	Tyr	His	Glu	Val	Leu	Gln	Leu	Arg	Pro	Lys	Thr	
				305					310					315	
Gly	Val	Arg	Gly	Leu	His	Lys	Ser	Leu	Thr	Asp	Val	Ala	Leu	Glu	
				320					325					330	
His	His	Glu	Glu	Cys	Asp	Cys	Val	Cys	Arg	Gly	Ser	Thr	Gly	Gly	
				335					340					345	

<210> 489

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 489

acttctcagt gtccataagg g 21

<210> 490

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 490

gaactaaaga gaaccgatac cattttctgg ccaggttgtc 40

<210> 491

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 491

caccacagcg tttaaccagg 20

<210> 492

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 492

acaacaggca cagttcccac 20

<210> 493

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 493

ggcggaatcc aacctgagta g 21

<210> 494

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 494

gcggctatcc tcctgtgctc 20

<210> 495

<211> 3283

<212> DNA

<213> Homo sapiens

<400> 495

cccatctcaa gctgatcttg gcacctctca tgctctgctc ttttcaacca 50

gacctctaca ttccatcttg gaagaagact aaaaatggtg tttccaatgt 100

ggacactgaa gagacaaatt cttatccttt ttaacataat cctaatttcc 150

aaactccttg gggctagatg gtttcctaaa actctgccct gtgatgtcac 200

tctggatgtt ccaaagaacc atgtgatcgt ggactgcaca gacaagcatt 250

tgacagaaaat tcctggaggt attcccacga acaccacgaa cctcaccctc 300

accattaacc acataaccaga catctcccca gcgtcctttc acagactgga 350

ccatctggta gagatcgatt tcagatgcaa ctgtgtacct attccactgg 400
 ggtcaaaaaa caacatgtgc atcaagaggc tgcagattaa acccagaagc 450
 tttagtggac tcaattttt aaaatccctt tacctggatg gaaaccagct 500
 actagagata ccgcagggcc tcccgcctag cttacagctt ctcagccttg 550
 aggccaacaa catcttttcc atcagaaaag agaattctaac agaactggcc 600
 aacatagaaa tactctacct gggccaaaac tgttattatc gaaatccttg 650
 ttatgtttca tattcaatag agaaagatgc cttcctaaac ttgacaaagt 700
 taaaagtgc ctccctgaaa gataacaatg tcacagccgt ccctactgtt 750
 ttgccatcta ctttaacaga actatatctc tacaacaaca tgattgcaaa 800
 aatccaagaa gatgatttta ataacctcaa ccaattacaa attcttgacc 850
 taagtggaaa ttgccctcgt tgttataatg ccccathttcc ttgtgcgccg 900
 tgtaaaaata attctccctt acagatccct gtaaatgctt ttgatgcgct 950
 gacagaatta aaagttttac gtctacacag taactctctt cagcatgtgc 1000
 cccaagatg gtttaagaac atcaacaaac tccaggaact ggatctgtcc 1050
 caaaacttct tggccaaaga aattggggat gctaaatttc tgcattttct 1100
 cccagcctc atccaattgg atctgtcttt caattttgaa cttcaggtct 1150
 atcgtgcac tatgaatcta tcacaagcat tttcttcaact gaaaagcctg 1200
 aaaattctgc ggatcagagg atatgtcttt aaagagttga aaagcttta 1250
 cctctcgcca ttacataatc ttcaaaatct tgaagttctt gatcttggca 1300
 ctaactttat aaaaattgct aacctcagca tgttttaaca atttaaaaga 1350
 ctgaaagtca tagatctttc agtgaataaa atatcacctt caggagattc 1400
 aagtgaagtt ggcttctgct caaatgccag aacttctgta gaaagttag 1450
 aacccaggt cctggaacaa ttacattatt tcagatatga taagtatgca 1500
 aggagttgca gattcaaaaa caaagaggct tctttcatgt ctgttaatga 1550
 aagctgctac aagtatgggc agaccttga tctaagtaaa aatagtatat 1600
 tttttgtcaa gtctctgat tttcagcatc tttctttcct caaatgcctg 1650
 aatctgtcag gaaatctcat tagccaaact cttaatggca gtgaattcca 1700
 accttttagca gagctgagat atttggactt ctccaacaac cggcttgatt 1750
 tactccattc aacagcattt gaagagottc acaaactgga agttctggat 1800

acaactgcct agtttaccaa ggagaggcct ggc 3283

<210> 496

<211> 1049

<212> PRT

<213> Homo sapiens

<400> 496

Met	Val	Phe	Pro	Met	Trp	Thr	Leu	Lys	Arg	Gln	Ile	Leu	Ile	Leu	
1				5					10					15	
Phe	Asn	Ile	Ile	Leu	Ile	Ser	Lys	Leu	Leu	Gly	Ala	Arg	Trp	Phe	
				20					25					30	
Pro	Lys	Thr	Leu	Pro	Cys	Asp	Val	Thr	Leu	Asp	Val	Pro	Lys	Asn	
				35					40					45	
His	Val	Ile	Val	Asp	Cys	Thr	Asp	Lys	His	Leu	Thr	Glu	Ile	Pro	
				50					55					60	
Gly	Gly	Ile	Pro	Thr	Asn	Thr	Thr	Asn	Leu	Thr	Leu	Thr	Ile	Asn	
				65					70					75	
His	Ile	Pro	Asp	Ile	Ser	Pro	Ala	Ser	Phe	His	Arg	Leu	Asp	His	
				80					85					90	
Leu	Val	Glu	Ile	Asp	Phe	Arg	Cys	Asn	Cys	Val	Pro	Ile	Pro	Leu	
				95					100					105	
Gly	Ser	Lys	Asn	Asn	Met	Cys	Ile	Lys	Arg	Leu	Gln	Ile	Lys	Pro	
				110					115					120	
Arg	Ser	Phe	Ser	Gly	Leu	Thr	Tyr	Leu	Lys	Ser	Leu	Tyr	Leu	Asp	
				125					130					135	
Gly	Asn	Gln	Leu	Leu	Glu	Ile	Pro	Gln	Gly	Leu	Pro	Pro	Ser	Leu	
				140					145					150	
Gln	Leu	Leu	Ser	Leu	Glu	Ala	Asn	Asn	Ile	Phe	Ser	Ile	Arg	Lys	
				155					160					165	
Glu	Asn	Leu	Thr	Glu	Leu	Ala	Asn	Ile	Glu	Ile	Leu	Tyr	Leu	Gly	
				170					175					180	
Gln	Asn	Cys	Tyr	Tyr	Arg	Asn	Pro	Cys	Tyr	Val	Ser	Tyr	Ser	Ile	
				185					190					195	
Glu	Lys	Asp	Ala	Phe	Leu	Asn	Leu	Thr	Lys	Leu	Lys	Val	Leu	Ser	
				200					205					210	
Leu	Lys	Asp	Asn	Asn	Val	Thr	Ala	Val	Pro	Thr	Val	Leu	Pro	Ser	
				215					220					225	
Thr	Leu	Thr	Glu	Leu	Tyr	Leu	Tyr	Asn	Asn	Met	Ile	Ala	Lys	Ile	
				230					235					240	
Gln	Glu	Asp	Asp	Phe	Asn	Asn	Leu	Asn	Gln	Leu	Gln	Ile	Leu	Asp	
				245					250					255	

Leu Ser Gly Asn Cys Pro Arg Cys Tyr Asn Ala Pro Phe Pro Cys	260	265	270
Ala Pro Cys Lys Asn Asn Ser Pro Leu Gln Ile Pro Val Asn Ala	275	280	285
Phe Asp Ala Leu Thr Glu Leu Lys Val Leu Arg Leu His Ser Asn	290	295	300
Ser Leu Gln His Val Pro Pro Arg Trp Phe Lys Asn Ile Asn Lys	305	310	315
Leu Gln Glu Leu Asp Leu Ser Gln Asn Phe Leu Ala Lys Glu Ile	320	325	330
Gly Asp Ala Lys Phe Leu His Phe Leu Pro Ser Leu Ile Gln Leu	335	340	345
Asp Leu Ser Phe Asn Phe Glu Leu Gln Val Tyr Arg Ala Ser Met	350	355	360
Asn Leu Ser Gln Ala Phe Ser Ser Leu Lys Ser Leu Lys Ile Leu	365	370	375
Arg Ile Arg Gly Tyr Val Phe Lys Glu Leu Lys Ser Phe Asn Leu	380	385	390
Ser Pro Leu His Asn Leu Gln Asn Leu Glu Val Leu Asp Leu Gly	395	400	405
Thr Asn Phe Ile Lys Ile Ala Asn Leu Ser Met Phe Lys Gln Phe	410	415	420
Lys Arg Leu Lys Val Ile Asp Leu Ser Val Asn Lys Ile Ser Pro	425	430	435
Ser Gly Asp Ser Ser Glu Val Gly Phe Cys Ser Asn Ala Arg Thr	440	445	450
Ser Val Glu Ser Tyr Glu Pro Gln Val Leu Glu Gln Leu His Tyr	455	460	465
Phe Arg Tyr Asp Lys Tyr Ala Arg Ser Cys Arg Phe Lys Asn Lys	470	475	480
Glu Ala Ser Phe Met Ser Val Asn Glu Ser Cys Tyr Lys Tyr Gly	485	490	495
Gln Thr Leu Asp Leu Ser Lys Asn Ser Ile Phe Phe Val Lys Ser	500	505	510
Ser Asp Phe Gln His Leu Ser Phe Leu Lys Cys Leu Asn Leu Ser	515	520	525
Gly Asn Leu Ile Ser Gln Thr Leu Asn Gly Ser Glu Phe Gln Pro	530	535	540
Leu Ala Glu Leu Arg Tyr Leu Asp Phe Ser Asn Asn Arg Leu Asp			

545	550	555
Leu Leu His Ser Thr Ala Phe Glu Glu	Leu His Lys Leu Glu Val	
560	565	570
Leu Asp Ile Ser Ser Asn Ser His Tyr	Phe Gln Ser Glu Gly Ile	
575	580	585
Thr His Met Leu Asn Phe Thr Lys Asn	Leu Lys Val Leu Gln Lys	
590	595	600
Leu Met Met Asn Asp Asn Asp Ile Ser	Ser Ser Thr Ser Arg Thr	
605	610	615
Met Glu Ser Glu Ser Leu Arg Thr Leu	Glu Phe Arg Gly Asn His	
620	625	630
Leu Asp Val Leu Trp Arg Glu Gly Asp	Asn Arg Tyr Leu Gln Leu	
635	640	645
Phe Lys Asn Leu Leu Lys Leu Glu Glu	Leu Asp Ile Ser Lys Asn	
650	655	660
Ser Leu Ser Phe Leu Pro Ser Gly Val	Phe Asp Gly Met Pro Pro	
665	670	675
Asn Leu Lys Asn Leu Ser Leu Ala Lys	Asn Gly Leu Lys Ser Phe	
680	685	690
Ser Trp Lys Lys Leu Gln Cys Leu Lys	Asn Leu Glu Thr Leu Asp	
695	700	705
Leu Ser His Asn Gln Leu Thr Thr Val	Pro Glu Arg Leu Ser Asn	
710	715	720
Cys Ser Arg Ser Leu Lys Asn Leu Ile	Leu Lys Asn Asn Gln Ile	
725	730	735
Arg Ser Leu Thr Lys Tyr Phe Leu Gln	Asp Ala Phe Gln Leu Arg	
740	745	750
Tyr Leu Asp Leu Ser Ser Asn Lys Ile	Gln Met Ile Gln Lys Thr	
755	760	765
Ser Phe Pro Glu Asn Val Leu Asn Asn	Leu Lys Met Leu Leu Leu	
770	775	780
His His Asn Arg Phe Leu Cys Thr Cys	Asp Ala Val Trp Phe Val	
785	790	795
Trp Trp Val Asn His Thr Glu Val Thr	Ile Pro Tyr Leu Ala Thr	
800	805	810
Asp Val Thr Cys Val Gly Pro Gly Ala	His Lys Gly Gln Ser Val	
815	820	825
Ile Ser Leu Asp Leu Tyr Thr Cys Glu	Leu Asp Leu Thr Asn Leu	
830	835	840

Ile	Leu	Phe	Ser	Leu	Ser	Ile	Ser	Val	Ser	Leu	Phe	Leu	Met	Val	
				845					850					855	
Met	Met	Thr	Ala	Ser	His	Leu	Tyr	Phe	Trp	Asp	Val	Trp	Tyr	Ile	
				860					865					870	
Tyr	His	Phe	Cys	Lys	Ala	Lys	Ile	Lys	Gly	Tyr	Gln	Arg	Leu	Ile	
				875					880					885	
Ser	Pro	Asp	Cys	Cys	Tyr	Asp	Ala	Phe	Ile	Val	Tyr	Asp	Thr	Lys	
				890					895					900	
Asp	Pro	Ala	Val	Thr	Glu	Trp	Val	Leu	Ala	Glu	Leu	Val	Ala	Lys	
				905					910					915	
Leu	Glu	Asp	Pro	Arg	Glu	Lys	His	Phe	Asn	Leu	Cys	Leu	Glu	Glu	
				920					925					930	
Arg	Asp	Trp	Leu	Pro	Gly	Gln	Pro	Val	Leu	Glu	Asn	Leu	Ser	Gln	
				935					940					945	
Ser	Ile	Gln	Leu	Ser	Lys	Lys	Thr	Val	Phe	Val	Met	Thr	Asp	Lys	
				950					955					960	
Tyr	Ala	Lys	Thr	Glu	Asn	Phe	Lys	Ile	Ala	Phe	Tyr	Leu	Ser	His	
				965					970					975	
Gln	Arg	Leu	Met	Asp	Glu	Lys	Val	Asp	Val	Ile	Ile	Leu	Ile	Phe	
				980					985					990	
Leu	Glu	Lys	Pro	Phe	Gln	Lys	Ser	Lys	Phe	Leu	Gln	Leu	Arg	Lys	
				995					1000					1005	
Arg	Leu	Cys	Gly	Ser	Ser	Val	Leu	Glu	Trp	Pro	Thr	Asn	Pro	Gln	
				1010					1015					1020	
Ala	His	Pro	Tyr	Phe	Trp	Gln	Cys	Leu	Lys	Asn	Ala	Leu	Ala	Thr	
				1025					1030					1035	
Asp	Asn	His	Val	Ala	Tyr	Ser	Gln	Val	Phe	Lys	Glu	Thr	Val		
				1040					1045						

<210> 497

<211> 4199

<212> DNA

<213> Homo sapiens

<400> 497

```

gggtaccatt ctgcgctgct gcaagttacg gaatgaaaaa ttagaacaac 50
agaaacatgg aaaacatggt ccttcagtcg tcaatgctga cctgcatttt 100
cctgctaata tctggttcct gtgagttatg cgccgaagaa aattttttcta 150
gaagctatcc ttgtgatgag aaaaagcaaa atgactcagt tattgcagag 200
tgcagcaatc gtcgactaca ggaagttccc caaacggtgg gcaaatatgt 250

```

gacagaacta gacctgtctg ataatttcat cacacacata acgaatgaat 300
 catttcaagg gctgcaaaat ctactaaaa taaatctaaa ccacaacccc 350
 aatgtacagc accagaacgg aaatcccggt atacaatcaa atggcttgaa 400
 tatcacagac ggggcattcc tcaacctaaa aaacctaaagg gagttactgc 450
 ttgaagacaa ccagttaccc caaataccct ctggtttgcc agagtctttg 500
 acagaactta gtctaattca aaacaatata tacaacataa ctaaagaggg 550
 catttcaaga cttataaact tgaaaaatct ctatttggcc tggaactgct 600
 attttaacaa agtttgcgag aaaactaaca tagaagatgg agtatttgaa 650
 acgctgacaa atttggagtt gctatcacta tctttcaatt ctctttcaca 700
 cgtgccaccc aaactgcaa gctccctacg caaacttttt ctgagcaaca 750
 ccagatcaa atacattagt gaagaagatt tcaagggatt gataaattta 800
 acattactag atttaagcgg gaactgtccg aggtgcttca atgccccatt 850
 tccatgcgtg ccttgtgatg gtggtgcttc aattaatata gatcgttttg 900
 cttttcaaaa cttgacccaa cttcgatacc taaacctctc tagcacttcc 950
 ctcaggaaga ttaatgctgc ctggtttaaa aatatgcctc atctgaaggt 1000
 gctggatctt gaattcaact atttagtggg agaaatagtc tctggggcat 1050
 ttttaacgat gctgccccgc ttagaaatac ttgacttgtc ttttaactat 1100
 ataaagggga gttatccaca gcatattaat atttccagaa acttctctaa 1150
 acttttgtct ctacgggcat tgcatttaag aggttatgtg ttccaggaac 1200
 tcagagaaga tgatttccag cccctgatgc agcttccaaa cttatcgact 1250
 atcaacttgg gtattaattt tattaagcaa atcgatttca aacttttcca 1300
 aaatttctcc aatctggaaa ttatttactt gtcagaaaac agaatatcac 1350
 cgttggtaaa agatacccg cagagttatg caaatagttc ctcttttcaa 1400
 cgtcatatcc ggaaacgacg ctcaacagat tttgagtttg acccacattc 1450
 gaacttttat catttcaccc gtcctttaat aaagccacaa tgtgctgctt 1500
 atggaaaagc cttagattta agcctcaaca gtattttctt cattgggcca 1550
 aaccaatttg aaaatcttcc tgacattgcc tgtttaaatc tgtctgcaaa 1600
 tagcaatgct caagtgttaa gtggaactga attttcagcc attcctcatg 1650
 tcaaatatth ggatttgaca aacaatagac tagactttga taatgctagt 1700

gctcttactg aattgtccga cttggaagtt ctagatctca gctataattc 1750
acactatttc agaatagcag gcgtaacaca tcatctagaa tttattcaaa 1800
atttcacaaa tctaaaagtt ttaaacttga gccacaacaa catttatact 1850
ttaacagata agtataacct ggaaagcaag tccctggtag aattagtttt 1900
cagtggcaat cgccttgaca ttttgtggaa tgatgatgac aacaggata 1950
tctocatttt caaaggcttc aagaatctga cacgtctgga tttatccctt 2000
aataggctga agcacatccc aaatgaagca ttccttaatt tgccagcgag 2050
tctcactgaa ctacatataa atgataatat gttaaagttt ttttaactgga 2100
cattactcca gcagtttctt cgtctcgagt tgcttgactt acgtggaaac 2150
aaactactct ttttaactga tagcctatct gactttacat cttcccttcg 2200
gacactgctg ctgagtcata acaggatttc ccacctaccc tctggctttc 2250
tttctgaagt cagtagtctg aagcacctcg atttaagttc caatctgcta 2300
aaaacaatca acaaattccgc acttgaaact aagaccacca ccaaattatc 2350
tatgttggaa ctacacggaa acccctttga atgcacctgt gacattggag 2400
atttccgaag atggatggat gaacatctga atgtcaaaat tcccagactg 2450
gtagatgtca tttgtgccag tcctggggat caaagagggg agagtattgt 2500
gagtctggag ctaacaactt gtgtttcaga tgtcactgca gtgatattat 2550
ttttcttcac gttctttatc accaccatgg ttatgttggc tgccctggct 2600
caccatttgt tttactggga tgtttggttt atatataatg tgtgttttagc 2650
taaggtaaaa ggctacaggt ctctttccac atcccaaact ttctatgatg 2700
cttacatttc ttatgacacc aaagatgcct ctgttactga ctgggtgata 2750
aatgagctgc gctaccacct tgaagagagc cgagacaaaa acgttctcct 2800
ttgtctagag gagagggatt gggacccggg attggccatc atcgacaacc 2850
tcatgcagag catcaaccaa agcaagaaaa cagtatttgt ttttaaccaa 2900
aaatatgcaa aaagctggaa ctttaaaaca gctttttact tggctttgca 2950
gaggctaatt gatgagaaca tggatgtgat tatatttatc ctgctggagc 3000
cagtgttaca gcattctcag tatttgaggc tacggcagcg gatctgtaag 3050
agctccatcc tccagtggcc tgacaaccog aaggcagaag gcttgttttg 3100
gcaaactctg agaaatgtgg tcttgactga aaatgattca cgtataaca 3150

Val Gly Lys Tyr	Val Thr Glu Leu Asp	Leu Ser Asp Asn Phe Ile
65	70	75
Thr His Ile Thr	Asn Glu Ser Phe Gln Gly	Leu Gln Asn Leu Thr
80	85	90
Lys Ile Asn Leu	Asn His Asn Pro Asn Val	Gln His Gln Asn Gly
95	100	105
Asn Pro Gly Ile	Gln Ser Asn Gly Leu Asn	Ile Thr Asp Gly Ala
110	115	120
Phe Leu Asn Leu	Lys Asn Leu Arg Glu Leu	Leu Leu Leu Glu Asp Asn
125	130	135
Gln Leu Pro Gln	Ile Pro Ser Gly Leu Pro	Glu Ser Leu Thr Glu
140	145	150
Leu Ser Leu Ile	Gln Asn Asn Ile Tyr Asn	Ile Thr Lys Glu Gly
155	160	165
Ile Ser Arg Leu	Ile Asn Leu Lys Asn Leu	Tyr Leu Ala Trp Asn
170	175	180
Cys Tyr Phe Asn	Lys Val Cys Glu Lys Thr	Asn Ile Glu Asp Gly
185	190	195
Val Phe Glu Thr	Leu Thr Asn Leu Glu Leu	Leu Ser Leu Ser Phe
200	205	210
Asn Ser Leu Ser	His Val Pro Pro Lys Leu	Pro Ser Ser Leu Arg
215	220	225
Lys Leu Phe Leu	Ser Asn Thr Gln Ile Lys	Tyr Ile Ser Glu Glu
230	235	240
Asp Phe Lys Gly	Leu Ile Asn Leu Thr Leu	Leu Asp Leu Ser Gly
245	250	255
Asn Cys Pro Arg	Cys Phe Asn Ala Pro Phe	Pro Cys Val Pro Cys
260	265	270
Asp Gly Gly Ala	Ser Ile Asn Ile Asp Arg	Phe Ala Phe Gln Asn
275	280	285
Leu Thr Gln Leu	Arg Tyr Leu Asn Leu Ser	Ser Thr Ser Leu Arg
290	295	300
Lys Ile Asn Ala	Ala Trp Phe Lys Asn Met	Pro His Leu Lys Val
305	310	315
Leu Asp Leu Glu	Phe Asn Tyr Leu Val Gly	Glu Ile Val Ser Gly
320	325	330
Ala Phe Leu Thr	Met Leu Pro Arg Leu Glu	Ile Leu Asp Leu Ser
335	340	345

Phe Asn Tyr Ile	Lys Gly Ser Tyr Pro	Gln His Ile Asn Ile Ser	350	355	360
Arg Asn Phe Ser	Lys Leu Leu Ser Leu	Arg Ala Leu His Leu Arg	365	370	375
Gly Tyr Val Phe	Gln Glu Leu Arg Glu	Asp Asp Phe Gln Pro Leu	380	385	390
Met Gln Leu Pro	Asn Leu Ser Thr Ile	Asn Leu Gly Ile Asn Phe	395	400	405
Ile Lys Gln Ile	Asp Phe Lys Leu Phe	Gln Asn Phe Ser Asn Leu	410	415	420
Glu Ile Ile Tyr	Leu Ser Glu Asn Arg	Ile Ser Pro Leu Val Lys	425	430	435
Asp Thr Arg Gln	Ser Tyr Ala Asn Ser	Ser Ser Phe Gln Arg His	440	445	450
Ile Arg Lys Arg	Arg Ser Thr Asp Phe	Glu Phe Asp Pro His Ser	455	460	465
Asn Phe Tyr His	Phe Thr Arg Pro Leu	Ile Lys Pro Gln Cys Ala	470	475	480
Ala Tyr Gly Lys	Ala Leu Asp Leu Ser	Leu Asn Ser Ile Phe Phe	485	490	495
Ile Gly Pro Asn	Gln Phe Glu Asn Leu	Pro Asp Ile Ala Cys Leu	500	505	510
Asn Leu Ser Ala	Asn Ser Asn Ala Gln	Val Leu Ser Gly Thr Glu	515	520	525
Phe Ser Ala Ile	Pro His Val Lys Tyr	Leu Asp Leu Thr Asn Asn	530	535	540
Arg Leu Asp Phe	Asp Asn Ala Ser Ala	Leu Thr Glu Leu Ser Asp	545	550	555
Leu Glu Val Leu	Asp Leu Ser Tyr Asn	Ser His Tyr Phe Arg Ile	560	565	570
Ala Gly Val Thr	His His Leu Glu Phe	Ile Gln Asn Phe Thr Asn	575	580	585
Leu Lys Val Leu	Asn Leu Ser His Asn	Asn Ile Tyr Thr Leu Thr	590	595	600
Asp Lys Tyr Asn	Leu Glu Ser Lys Ser	Leu Val Glu Leu Val Phe	605	610	615
Ser Gly Asn Arg	Leu Asp Ile Leu Trp	Asn Asp Asp Asp Asn Arg	620	625	630
Tyr Ile Ser Ile	Phe Lys Gly Leu Lys	Asn Leu Thr Arg Leu Asp			

Leu Ser Leu Asn Arg Leu Lys His Ile	Pro Asn Glu Ala Phe Leu	
650	655	660
Asn Leu Pro Ala Ser Leu Thr Glu Leu	His Ile Asn Asp Asn Met	
665	670	675
Leu Lys Phe Phe Asn Trp Thr Leu Leu	Gln Gln Phe Pro Arg Leu	
680	685	690
Glu Leu Leu Asp Leu Arg Gly Asn Lys	Leu Leu Phe Leu Thr Asp	
695	700	705
Ser Leu Ser Asp Phe Thr Ser Ser Leu	Arg Thr Leu Leu Leu Ser	
710	715	720
His Asn Arg Ile Ser His Leu Pro Ser	Gly Phe Leu Ser Glu Val	
725	730	735
Ser Ser Leu Lys His Leu Asp Leu Ser	Ser Asn Leu Leu Lys Thr	
740	745	750
Ile Asn Lys Ser Ala Leu Glu Thr Lys	Thr Thr Thr Lys Leu Ser	
755	760	765
Met Leu Glu Leu His Gly Asn Pro Phe	Glu Cys Thr Cys Asp Ile	
770	775	780
Gly Asp Phe Arg Arg Trp Met Asp Glu	His Leu Asn Val Lys Ile	
785	790	795
Pro Arg Leu Val Asp Val Ile Cys Ala	Ser Pro Gly Asp Gln Arg	
800	805	810
Gly Lys Ser Ile Val Ser Leu Glu Leu	Thr Thr Cys Val Ser Asp	
815	820	825
Val Thr Ala Val Ile Leu Phe Phe Phe	Thr Phe Phe Ile Thr Thr	
830	835	840
Met Val Met Leu Ala Ala Leu Ala His	His Leu Phe Tyr Trp Asp	
845	850	855
Val Trp Phe Ile Tyr Asn Val Cys Leu	Ala Lys Val Lys Gly Tyr	
860	865	870
Arg Ser Leu Ser Thr Ser Gln Thr Phe	Tyr Asp Ala Tyr Ile Ser	
875	880	885
Tyr Asp Thr Lys Asp Ala Ser Val Thr	Asp Trp Val Ile Asn Glu	
890	895	900
Leu Arg Tyr His Leu Glu Glu Ser Arg	Asp Lys Asn Val Leu Leu	
905	910	915
Cys Leu Glu Glu Arg Asp Trp Asp Pro	Gly Leu Ala Ile Ile Asp	
920	925	930

<211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 502
 gccgagacaa aaacgttctc c 21

<210> 503
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 503
 catccatggt ctcattccatt agcc 24

<210> 504
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 504
 tcgacaacct catgcagagc atcaacaaaa gcaagaaaac agtatt 46

<210> 505
 <211> 1738
 <212> DNA
 <213> Homo sapiens

<400> 505
 ccagggtccaa ctgcacctcg gttctatcga ttgaattccc cggggatcct 50
 ctagagatcc ctgcacctcg acccagcgt ccgccaagct ggccctgcac 100
 ggctgcaagg gaggctcctg tggacaggcc aggcagggtg gcctcaggag 150
 gtgcctccag gcggccagt ggctgaggc cccagcaagg gctagggctc 200
 atctccagtc ccaggacaca gcagcggcca ccatggccac gcctgggctc 250
 cagcagcatc agcagcccc aggaccgggg aggcacagggt ggccccacc 300
 acccgaggga gcagctcctg cccctgtccg ggggatgact gattctctc 350
 cgccaggcca cccagaggag aaggccaccc cgctggagg cacaggccat 400
 gaggggctct caggagggtg tgctgatgtg gcttctggtg ttggcagtgg 450
 gcggcacaga gcacgcctac cgccccggcc gtaggggtgtg tgctgtccg 500

gtcacgggg accctgtctc cgagtcgttc gtgcagcgtg tgtaccagcc 550
cttcctcacc acctgcgacg ggcaccgggc ctgcagcacc taccgaacca 600
tctataggac cgcctaccgc cgcagccctg ggctggcccc tgccaggcct 650
cgctacgcgt gctgccccgg ctggaagagg accagcgggc ttcttggggc 700
ctgtggagca gcaatatgcc agccgccatg ccggaacgga gggagctgtg 750
tccagcctgg ccgctgccgc tgcctgcag gatggcgggg tgacaattgc 800
cagtcagatg tggatgaatg cagtgcagg aggggcggct gtccccagcg 850
ctgcatcaac accgccggca gttactggtg ccagtgttgg gaggggcaca 900
gcctgtctgc agacgggtaca ctctgtgtgc ccaagggagg gccccccagg 950
gtggccccca acccgacagg agtggacagt gcaatgaagg aagaagtgc 1000
gaggctgcag tccaggttg accctgctgga ggagaagctg cagctggtgc 1050
tggccccact gcacagcctg gcctgcagag cactggagca tgggctcccg 1100
gaccccgga gcctcctggt gcactccttc cagcagctcg gccgcatcga 1150
ctccctgagc gagcagattt ccttcctgga ggagcagctg gggctcctgct 1200
cctgcaagaa agactcgtga ctgcccagcg cccagcgtg gactgagccc 1250
ctcacgccgc cctgcagccc ccatgcccct gcccaacatg ctgggggtcc 1300
agaagccacc tcggggtgac tgagcggaag gccaggcagg gccttcctcc 1350
tcttcctcct ccccttcctc gggaggtcc ccagaccctg gcatgggatg 1400
ggctgggatc ttctctgtga atccaccct ggctaccccc accctggcta 1450
ccccaacggc atcccaaggc cagggtgggc ctgagctgag ggaaggtacg 1500
agctccctgc tggagcctgg gacccatggc acaggccagg cagcccggag 1550
gctgggtggg gcctcagtgg gggctgctgc ctgaccccca gcacaataaa 1600
aatgaaacgt gaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa 1650
aaaggcggc cgcgactcta gagtcgacct gcagaagctt ggccgccatg 1700
gccaacttg ttattgcag cttataatgg ttacaaat 1738

<210> 506

<211> 273

<212> PRT

<213> Homo sapiens

<400> 506

Met	Arg	Gly	Ser	Gln	Glu	Val	Leu	Leu	Met	Trp	Leu	Leu	Val	Leu
1					5				10					15

0697555-101602

Ala	Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Arg	Val	20	25	30
Cys	Ala	Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	35	40	45
Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	50	55	60
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	65	70	75
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	80	85	90
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	95	100	105
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	110	115	120
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln	125	130	135
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln	140	145	150
Arg	Cys	Ile	Asn	Thr	Ala	Gly	Ser	Tyr	Trp	Cys	Gln	Cys	Trp	Glu	155	160	165
Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys	Val	Pro	Lys	Gly	170	175	180
Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val	Asp	Ser	Ala	185	190	195
Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp	Leu	Leu	200	205	210
Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu	Ala	215	220	225
Ser	Gln	Ala	Leu	Glu	His	Gly	Leu	Pro	Asp	Pro	Gly	Ser	Leu	Leu	230	235	240
Val	His	Ser	Phe	Gln	Gln	Leu	Gly	Arg	Ile	Asp	Ser	Leu	Ser	Glu	245	250	255
Gln	Ile	Ser	Phe	Leu	Glu	Glu	Gln	Leu	Gly	Ser	Cys	Ser	Cys	Lys	260	265	270

Lys Asp Ser

<210> 507
 <211> 1700
 <212> DNA
 <213> Homo sapiens

<400> 507

gccaggcagg tgggcctcag gaggtgcctc caggcggcca gtgggcctga 50
ggccccagca agggctaggg tccatctcca gtcccaggac acagcagcgg 100
ccaccatggc cagcctggg ctccagcagc atcagagcag cccctgtggt 150
tggcagcaaa gttcagcttg gctgggcccg ctgtgagggg cttcgcgcta 200
cgccctgcgg tgtcccagg gctgaggtct cctcatcttc tccctagcag 250
tggatgagca acccaacggg ggcccgggga ggggaactgg ccccgaggga 300
gaggaacccc aaagccacat ctgtagccag gatgagcagt gtgaatccag 350
gcagccccc ggaccgggga ggcacagggt gccccacca cccggaggag 400
cagctcctgc ccctgtccgg gggatgactg attctctctc gccaggccac 450
ccagaggaga aggccacccc gcctggaggc acaggccatg aggggctctc 500
aggaggtgct gctgatgtgg cttctggtgt tggcagtggg cggcacagag 550
cacgcctacc ggcccggccg tagggtgtgt gctgtccggg ctcacgggga 600
ccctgtctcc gactcgttcg tgcagcgtgt gtaccagccc ttctcacca 650
cctgcgacgg gcaccgggccc tgcagcacct accgaaccat ctataggacc 700
gcctaccgcc gcagccctgg gctggcccct gccaggcctc gctacgcgtg 750
ctgccccggc tggaagagga ccagcgggct tcctggggcc tgtggagcag 800
caatatgcca gccgccatgc cggaacggag ggagctgtgt ccagcctggc 850
cgctgccgtt gccctgcagg atggcggggg gacacttgcc agtcagatgt 900
ggatgaatgc agtgctagga ggggaggctg tccccagcgc tgcataca 950
ccgccggcag ttactggtgc cagtgttggg aggggcacag cctgtctgca 1000
gacggtacac tctgtgtgcc caaggagggg cccccaggg tggcccccaa 1050
cccgacagga gtggacagt caatgaagga agaagtgcag aggctgcagt 1100
ccagggtgga cctgctggag gagaagctgc agctggtgct ggccccactg 1150
cacagcctgg cctcgcaggc actggagcat gggctcccgg accccggcag 1200
cctcctggtg cactccttcc agcagctcgg ccgcacgcac tccctgagcg 1250
agcagatttc cttcctggag gagcagctgg ggtcctgctc ctgcaagaaa 1300
gactcgtgac tgcccagcgc tccaggctgg actgagcccc tcacgccgcc 1350
ctgcagcccc catgcccctg cccaacatgc tgggggtcca gaagccacct 1400
cggggtgact gagcggaagg ccaggcaggg ccttcctcct cttcctcctc 1450

cccttctctcg ggaggctccc cagaccctgg catgggatgg gctgggatct 1500
tctctgtgaa tccacccttg gctaccccca ccttggtac cccaacggca 1550
tcccaaggcc aggtggaccc tcagctgagg gaaggtaaga gctccctgct 1600
ggagcctggg acccatggca caggccaggc agcccggagg ctgggtgggg 1650
cctcagtggg ggctgctgcc tgacccccag cacaataaaa atgaaacgtg 1700

<210> 508

<211> 273

<212> PRT

<213> Homo sapiens

<400> 508

Met	Arg	Gly	Ser	Gln	Glu	Val	Leu	Leu	Met	Trp	Leu	Leu	Val	Leu
1				5					10					15
Ala	Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Arg	Val
				20					25					30
Cys	Ala	Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val
				35					40					45
Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg
				50					55					60
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg
				65					70					75
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro
				80					85					90
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala
				95					100					105
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro
				110					115					120
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln
				125					130					135
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln
				140					145					150
Arg	Cys	Ile	Asn	Thr	Ala	Gly	Ser	Tyr	Trp	Cys	Gln	Cys	Trp	Glu
				155					160					165
Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys	Val	Pro	Lys	Gly
				170					175					180
Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val	Asp	Ser	Ala
				185					190					195
Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp	Leu	Leu
				200					205					210

Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu	Ala
				215					220					225
Ser	Gln	Ala	Leu	Glu	His	Gly	Leu	Pro	Asp	Pro	Gly	Ser	Leu	Leu
				230					235					240
Val	His	Ser	Phe	Gln	Gln	Leu	Gly	Arg	Ile	Asp	Ser	Leu	Ser	Glu
				245					250					255
Gln	Ile	Ser	Phe	Leu	Glu	Glu	Gln	Leu	Gly	Ser	Cys	Ser	Cys	Lys
				260					265					270

Lys Asp Ser

<210> 509
 <211> 1538
 <212> DNA
 <213> Homo sapiens

<400> 509
 cccacgcgtc cgaagctggc cctgcacggc tgcaagggag gctcctgtgg 50
 acaggccagg caggtgggccc tcaggaggtg cctccaggcg gccagtgggc 100
 ctgaggcccc agcaagggct agggctccatc tccagtccca ggacacagca 150
 gcggccacca tggccacgcc tgggctccag cagcatcagc agccccagg 200
 accggggagg cacaggtggc cccaccacc cggaggagca gctcctgccc 250
 ctgtccgggg gatgactgat tctcctccgc caggccacc agaggagaag 300
 gccaccccg ctaggagcac aggccatgag gggctctcag gaggtgctgc 350
 tgatgtggct tctggtgttg gcagtgggcg gcacagagca cgcctaccgg 400
 cccggccgta ggggtgtgtg tgtccgggct cacggggacc ctgtctccga 450
 gtcgttcgtg cagcgtgtgt accagccctt cctcaccacc tgcgacgggc 500
 accgggcctg cagcacctac cgaaccatct ataggaccgc ctaccgccgc 550
 agccctgggc tggcccctgc caggcctcgc tacgcgtgct gccccggctg 600
 gaagaggacc agcgggcttc ctggggcctg tggagcagca atatgccagc 650
 cgccatgccg gaacggaggg agctgtgtcc agcctggccg ctgccgctgc 700
 cctgcaggat ggcgggggtga cacttgccag tcagatgtgg atgaatgcag 750
 tgctaggagg ggcggctgtc cccagcgtg cgtcaacacc gccggcagtt 800
 actggtgccca gtgttgggag gggcacagcc tgtctgcaga cggtacactc 850
 tgtgtgccca agggagggcc ccccagggtg gcccacaacc cgacaggagt 900
 ggacagtgca atgaaggaag aagtgcagag gctgcagtcc aggggtgacc 950

tgctggagga gaagctgcag ctggtgctgg cccactgca cagcctggcc 1000
 tcgcaggcac tggagcatgg gctcccgac cccggcagcc tcctggtgca 1050
 ctcttccag cagctcggcc gcacgcactc cctgagcgag cagatttcct 1100
 tcctggagga gcagctgggg tcctgctcct gcaagaaaga ctggtgactg 1150
 cccagcggcc caggctggac tgagcccctc acgcccctt gcagccccc 1200
 tgcccctgcc caacatgctg ggggtccaga agccacctcg gggtgactga 1250
 gcggaaggcc aggcagggcc ttcctcctct tcctcctccc cttcctcggg 1300
 aggtcccca gacctggca tgggatgggc tgggatcttc tctgtgaatc 1350
 caccctggc taccaccacc ctggctaccc caacggcatc ccaaggccag 1400
 gtgggccctc agctgaggga aggtacgagc tccctgctgg agcctgggac 1450
 ccatggcaca ggccaggcag cccggaggct ggggtggggcc tcagtggggg 1500
 ctgctgcctg acccccagca caataaaaat gaaacgtg 1538

<210> 510

<211> 273

<212> PRT

<213> Homo sapiens

<400> 510

Met	Arg	Gly	Ser	Gln	Glu	Val	Leu	Leu	Met	Trp	Leu	Leu	Val	Leu	1	5	10	15
Ala	Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Arg	Val	20	25	30	
Cys	Ala	Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	35	40	45	
Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	50	55	60	
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	65	70	75	
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	80	85	90	
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	95	100	105	
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	110	115	120	
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln	125	130	135	
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln				

<400> 513

ggtgacactt gccagtcaga tgtggatgaa tgcagtgcta ggaggg 46

<210> 514

<211> 2690

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 2039-2065

<223> unknown base

<400> 514

ggttgccaca gctggttttag ggccccgacc actggggccc cttgtcagga 50
ggagacagcc tcccggcccg gggaggacaa gtcgctgccca cttttggctg 100
ccgacgtgat tccctgggac ggtccgtttc ctgccgtcag ctgccggccg 150
agttgggtct ccgtgtttca ggccggctcc cccttcctgg tctcccttct 200
cccgtgggc cggtttatcg ggaggagatt gtcttccagg gctagcaatt 250
ggacttttga tgatgtttga ccagcggca ggaatagcag gcaacgtgat 300
ttcaaagctg ggctcagcct ctgtttcttc tctcgtgtaa tcgcaaaacc 350
cattttggag caggaattcc aatcatgtct gtgatgggtg tgagaaagaa 400
ggtgacacgg aaatgggaga aactcccagg caggaacacc ttttgctgtg 450
atggccgcgt catgatggcc cggcaaaagg gcattttcta cctgaccctt 500
ttcctcatcc tggggacatg tacactcttc ttgcgctttg agtgccgcta 550
cctggctgtt cagctgtctc ctgccatccc tgtatttgct gccatgctct 600
tccttttctc catggctaca ctgttgagga ccagcttcag tgaccctgga 650
gtgattcctc gggcgctacc agatgaagca gctttcatag aaatggagat 700
agaagctacc aatgggtgcg tgccccaggg ccagcgacca ccgcctcgta 750
tcaagaattt ccagataaac aaccagattg tgaaactgaa atactgttac 800
acatgcaaga tcttccggcc tcccgggcc tccattgca gcatctgtga 850
caactgtgtg gagcgcttcg accatcactg cccctgggtg gggaattgtg 900
ttggaaagag gaactaccgc tacttctacc tcttcatcct ttctctctcc 950
ctcctcacia tctatgtctt cgccttcaac atcgtctatg tggccctcaa 1000
atctttgaaa attggcttct tggagacatt gaaagaaact cctggaactg 1050
ttctagaagt cctcatttgc ttctttacac totggtccgt cgtgggactg 1100

actggatttc atactttcct cgtggctctc aaccagacaa ccaatgaaga 1150
catcaaagga tcatggacag ggaagaatcg cgtccagaat ccctacagcc 1200
atggcaatat tgtgaagaac tgctgtgaag tgctgtgtgg ccccttgccc 1250
cccagtgtgc tggatcgaag gggatatttg ccaactggagg aaagtggaag 1300
tcgacctccc agtactcaag agaccagtag cagcctcttg ccacagagcc 1350
cagccccac agaacacctg aactcaaatg agatgccgga ggacagcagc 1400
actcccgaag agatgccacc tccagagccc ccagagccac cacaggaggc 1450
agctgaagct gagaagtagc ctatctatgg aagagacttt tgtttgtgtt 1500
taattagggc tatgagagat ttcaggtgag aagttaaacc tgagacagag 1550
agcaagtaag ctgtcccttt taactgtttt tctttggtct ttagtcaccc 1600
agttgcacac tggcattttc ttgctgcaag cttttttaaa tttctgaact 1650
caaggcagtg gcagaagatg tcagtcacct ctgataactg gaaaaatggg 1700
tctcttgggc cctggcactg gttctccatg gcctcagcca cagggtcccc 1750
ttggaccccc tctcttccct ccagatccca gccctcctgc ttggggtcac 1800
tgggtctcatt ctggggctaa aagtttttga gactggctca aatcctccca 1850
agctgctgca cgtgctgagt ccagaggcag tcacagagac ctctggccag 1900
gggatcccaa ctgggttctt ggggtcttca ggactgaaga ggaggagag 1950
tggggtcaga agattctcct ggccaccaag tgccagcatt gccacaaaat 2000
ccttttagga atgggacagg taccttcac ttgttgtann nnnnnnnnnn 2050
nnnnnnnnnn nnnnnttggt tttccttttg actcctgctc ccattaggag 2100
caggaatggc agtaataaaa gtctgcactt tggtcatttc ttttcctcag 2150
aggaagcccc agtgctcact taaacactat ccctcagac tccctgtgtg 2200
aggcctgcag aggcctgaa tgcacaaatg ggaaccaag gcacagagag 2250
gctctcctct cctctcctct ccccgatgt accctcaaaa aaaaaaaaaat 2300
gctaaccagt tcttcatta agcctcggct gagtgaggga aagcccagca 2350
ctgctgccct ctcggttaac tcaccctaag gcctcgccc acctctggt 2400
atggtaacca cactgggggc ttcctccaag ccccgctctt ccagcattc 2450
caccggcaga gtcccagagc cacttcaccc tgggggtggg ctgtggcccc 2500
cagtcagctc tgctcaggac ctgctctatt tcagggaaga agatttatgt 2550

attatatgtg gctatatattc ctagagcacc tgtgttttcc tcttttctaag 2600
 ccagggtcct gtctggatga cttatgcggt gggggagtgt aaaccggaac 2650
 ttttcatcta ttggaaggcg attaaactgt gtctaatagca 2690

<210> 515
 <211> 364
 <212> PRT
 <213> Homo sapiens

<400> 515

Met	Ser	Val	Met	Val	Val	Arg	Lys	Lys	Val	Thr	Arg	Lys	Trp	Glu
1				5					10					15
Lys	Leu	Pro	Gly	Arg	Asn	Thr	Phe	Cys	Cys	Asp	Gly	Arg	Val	Met
				20					25					30
Met	Ala	Arg	Gln	Lys	Gly	Ile	Phe	Tyr	Leu	Thr	Leu	Phe	Leu	Ile
				35					40					45
Leu	Gly	Thr	Cys	Thr	Leu	Phe	Phe	Ala	Phe	Glu	Cys	Arg	Tyr	Leu
				50					55					60
Ala	Val	Gln	Leu	Ser	Pro	Ala	Ile	Pro	Val	Phe	Ala	Ala	Met	Leu
				65					70					75
Phe	Leu	Phe	Ser	Met	Ala	Thr	Leu	Leu	Arg	Thr	Ser	Phe	Ser	Asp
				80					85					90
Pro	Gly	Val	Ile	Pro	Arg	Ala	Leu	Pro	Asp	Glu	Ala	Ala	Phe	Ile
				95					100					105
Glu	Met	Glu	Ile	Glu	Ala	Thr	Asn	Gly	Ala	Val	Pro	Gln	Gly	Gln
				110					115					120
Arg	Pro	Pro	Pro	Arg	Ile	Lys	Asn	Phe	Gln	Ile	Asn	Asn	Gln	Ile
				125					130					135
Val	Lys	Leu	Lys	Tyr	Cys	Tyr	Thr	Cys	Lys	Ile	Phe	Arg	Pro	Pro
				140					145					150
Arg	Ala	Ser	His	Cys	Ser	Ile	Cys	Asp	Asn	Cys	Val	Glu	Arg	Phe
				155					160					165
Asp	His	His	Cys	Pro	Trp	Val	Gly	Asn	Cys	Val	Gly	Lys	Arg	Asn
				170					175					180
Tyr	Arg	Tyr	Phe	Tyr	Leu	Phe	Ile	Leu	Ser	Leu	Ser	Leu	Leu	Thr
				185					190					195
Ile	Tyr	Val	Phe	Ala	Phe	Asn	Ile	Val	Tyr	Val	Ala	Leu	Lys	Ser
				200					205					210
Leu	Lys	Ile	Gly	Phe	Leu	Glu	Thr	Leu	Lys	Glu	Thr	Pro	Gly	Thr
				215					220					225
Val	Leu	Glu	Val	Leu	Ile	Cys	Phe	Phe	Thr	Leu	Trp	Ser	Val	Val

230	235	240
Gly Leu Thr Gly Phe His Thr Phe Leu Val Ala Leu Asn Gln Thr		
245	250	255
Thr Asn Glu Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val		
260	265	270
Gln Asn Pro Tyr Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu		
275	280	285
Val Leu Cys Gly Pro Leu Pro Pro Ser Val Leu Asp Arg Arg Gly		
290	295	300
Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro Ser Thr Gln		
305	310	315
Glu Thr Ser Ser Ser Leu Leu Pro Gln Ser Pro Ala Pro Thr Glu		
320	325	330
His Leu Asn Ser Asn Glu Met Pro Glu Asp Ser Ser Thr Pro Glu		
335	340	345
Glu Met Pro Pro Pro Glu Pro Pro Glu Pro Pro Gln Glu Ala Ala		
350	355	360
Glu Ala Glu Lys		

<210> 516
 <211> 255
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 36, 38, 88, 118, 135, 193, 213, 222
 <223> unknown base

<400> 516
 aaaaccctgt attttttaca atgcaaatac acaatnancc tggaggtctt 50
 tgaattaggt attataggga tgggtggggtt gatttttntt cctggaggct 100
 tttggctttg gactctcnct ttctcccaca gagcncttcg accatcactg 150
 cccctgggtg gggaattgtg ttggaaagag gaactaccgc tanttctacc 200
 tcttcacact ttntctctcc cncctcacia tctatgtctt cgccttcaac 250
 atcgt 255

<210> 517
 <211> 24
 <212> DNA
 <213> Artificial Sequence
 <220>

<223> Synthetic oligonucleotide probe

<400> 517

caacgtgatt tcaaagctgg gctc 24

<210> 518

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 518

gcctcgtatc aagaatttcc 20

<210> 519

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 519

agtggaagtc gacctccc 18

<210> 520

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 520

ctcacctgaa atctctcata gccc 24

<210> 521

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 521

cgcaaaaccc attttgggag caggaattcc aatcatgtct gtgatgggtgg 50

<210> 522

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 522

gttgtgtcct tcagcaaac agtggattta aatctccttg cacaagcttg 50

agagcaacac aatctatcag gaaagaaaga aagaaaaaaa ccgaacctga 100

caaaaaagaa gaaaaagaag aagaaaaaaa atcatgaaaa ccatocagcc 150
 aaaaatgcac aattctatct cttgggcaat cttcacgggg ctggctgctc 200
 tgtgtctctt ccaaggagtgc cccgtgcgca gcgagatgc caccttcccc 250
 aaagctatgg acaacgtgac ggtccggcag ggggagagcg ccaccctcag 300
 gtgcactatt gacaaccggg tcaccgggtt ggcctggcta aaccgcagca 350
 ccatcctcta tgctgggaat gacaagtgtt gcctggatcc tcgcgtgggtc 400
 cttctgagca acacccaaac gcagtacagc atcgagatcc agaacgtgga 450
 tgtgtatgac gagggccctt acacctgctc ggtgcagaca gacaaccacc 500
 caaagacctc tagggtccac ctcatgtgc aagtatctcc caaaattgta 550
 gagatttctt cagatatctc cattaatgaa gggaacaata ttagcctcac 600
 ctgcatagca actggtagac cagagcctac gggtacttgg agacacatct 650
 ctcccaaagc ggttggcttt gtgagtgaag acgaatactt ggaaattcag 700
 ggcacacccc gggagcagtc aggggactac gagtgcagtg cctccaatga 750
 cgtggccgag cccgtggtac ggagagtaaa ggtcaccgtg aactatccac 800
 catacatttc agaagccaag ggtacaggtg tccccgtggg aaaaagggg 850
 aactgcagt gtgaagcctc agcagtcctc tcagcagaat tccagtggta 900
 caaggatgac aaaagactga ttgaaggaaa gaaaggggtg aaagtggaaa 950
 acagaccttt cctctcaaaa ctcatcttct tcaatgtctc tgaacatgac 1000
 tatgggaact acacttgctt ggctccaac aagctgggac acaccaatgc 1050
 cagcatcatg ctatttggtc caggcgccgt cagcgaggtg agcaacggca 1100
 cgtcgaggag ggcaggctgc gtctggctgc tgcctcttct ggtcttgac 1150
 ctgcttctca aattttgatg tgagtgccac ttccccaccc gggaaaggct 1200
 gccgccacca ccaccacca cacaacagca atggcaacac cgacagcaac 1250
 caatcagata tatacaaatg aaattagaag aaacacagcc tcatgggaca 1300
 gaaatttgag ggaggggaac aaagaatact ttggggggaa aagagtttta 1350
 aaaaagaaat tgaaaattgc cttgcagata tttaggtaca atggagtttt 1400
 cttttcccaa acgggaagaa cacagcacac ccggcttgga cccactgcaa 1450
 gctgcatcgt gcaacctctt tgggtgccagt gtgggcaagg gctcagcctc 1500
 totgccaca gagtgcctcc acgtggaaca ttctggagct ggccatccca 1550

aattcaatca gtccatagag acgaacagaa tgagaccttc cggcccaagc 1600
 gtggcgctgc gggcactttg gtagactgtg ccaccacggc gtgtgttgtg 1650
 aaacgtgaaa taaaaagagc aaaaaaaaaa 1679

<210> 523
 <211> 344
 <212> PRT
 <213> Homo sapiens

<400> 523

Met	Lys	Thr	Ile	Gln	Pro	Lys	Met	His	Asn	Ser	Ile	Ser	Trp	Ala	
1				5					10					15	
Ile	Phe	Thr	Gly	Leu	Ala	Ala	Leu	Cys	Leu	Phe	Gln	Gly	Val	Pro	
				20					25					30	
Val	Arg	Ser	Gly	Asp	Ala	Thr	Phe	Pro	Lys	Ala	Met	Asp	Asn	Val	
				35					40					45	
Thr	Val	Arg	Gln	Gly	Glu	Ser	Ala	Thr	Leu	Arg	Cys	Thr	Ile	Asp	
				50					55					60	
Asn	Arg	Val	Thr	Arg	Val	Ala	Trp	Leu	Asn	Arg	Ser	Thr	Ile	Leu	
				65					70					75	
Tyr	Ala	Gly	Asn	Asp	Lys	Trp	Cys	Leu	Asp	Pro	Arg	Val	Val	Leu	
				80					85					90	
Leu	Ser	Asn	Thr	Gln	Thr	Gln	Tyr	Ser	Ile	Glu	Ile	Gln	Asn	Val	
				95					100					105	
Asp	Val	Tyr	Asp	Glu	Gly	Pro	Tyr	Thr	Cys	Ser	Val	Gln	Thr	Asp	
				110					115					120	
Asn	His	Pro	Lys	Thr	Ser	Arg	Val	His	Leu	Ile	Val	Gln	Val	Ser	
				125					130					135	
Pro	Lys	Ile	Val	Glu	Ile	Ser	Ser	Asp	Ile	Ser	Ile	Asn	Glu	Gly	
				140					145					150	
Asn	Asn	Ile	Ser	Leu	Thr	Cys	Ile	Ala	Thr	Gly	Arg	Pro	Glu	Pro	
				155					160					165	
Thr	Val	Thr	Trp	Arg	His	Ile	Ser	Pro	Lys	Ala	Val	Gly	Phe	Val	
				170					175					180	
Ser	Glu	Asp	Glu	Tyr	Leu	Glu	Ile	Gln	Gly	Ile	Thr	Arg	Glu	Gln	
				185					190					195	
Ser	Gly	Asp	Tyr	Glu	Cys	Ser	Ala	Ser	Asn	Asp	Val	Ala	Ala	Pro	
				200					205					210	
Val	Val	Arg	Arg	Val	Lys	Val	Thr	Val	Asn	Tyr	Pro	Pro	Tyr	Ile	
				215					220					225	
Ser	Glu	Ala	Lys	Gly	Thr	Gly	Val	Pro	Val	Gly	Gln	Lys	Gly	Thr	

	230		235		240
Leu Gln Cys Glu	Ala Ser Ala Val Pro	Ser Ala Glu Phe Gln Trp			
	245	250	255		
Tyr Lys Asp Asp	Lys Arg Leu Ile Glu	Gly Lys Lys Gly Val Lys			
	260	265	270		
Val Glu Asn Arg	Pro Phe Leu Ser Lys	Leu Ile Phe Phe Asn Val			
	275	280	285		
Ser Glu His Asp	Tyr Gly Asn Tyr Thr	Cys Val Ala Ser Asn Lys			
	290	295	300		
Leu Gly His Thr	Asn Ala Ser Ile Met	Leu Phe Gly Pro Gly Ala			
	305	310	315		
Val Ser Glu Val	Ser Asn Gly Thr Ser	Arg Arg Ala Gly Cys Val			
	320	325	330		
Trp Leu Leu Pro	Leu Leu Val Leu His	Leu Leu Leu Lys Phe			
	335	340			

<210> 524
 <211> 503
 <212> DNA
 <213> Homo sapiens

<400> 524
 gaaaaaaaat catgaaaacc atccagccaa aaatgcacaa ttctatctct 50
 tgggcaatct tcacggggct ggctgctctg tgtctcttcc aaggagtgcc 100
 cgtgcgcagc ggagatgcca ctttcccaa agctatggac aacgtgacgg 150
 tccggcaggg ggagagcgcc accctcaggt gcactattga caaccgggtc 200
 acccggtggt cctggctaaa ccgcagcacc atcctctatg ctgggaatga 250
 caagtgggtgc ctggatcttc gcgtgggtcct tctgagcaac acccaaacgc 300
 agtacagcat cgagatccag aacgtggatg tgtatgacga gggcccttac 350
 acctgctcgg tgcagacaga caaccacca aagacctcta ggtccacct 400
 cattgtgcaa gtatctccca aaattgtaga gatttcttca gatattcca 450
 ttaatgaagg gaacaatatt agcctcacct gcatagcaac tggtagacca 500
 gag 503

<210> 525
 <211> 2602
 <212> DNA
 <213> Homo sapiens

<400> 525
 atggctggtg acggcggggc cgggcagggg accggggccg cgccccggga 50

gcggggccagc tgccggggagc cctgaatcac cgccctggccc gactccacca 100
tgaacgtcgc gctgcaggag ctgggagctg gcagcaacgt gggattccag 150
aaggggacaa gacagctgtt aggctcacgc acgcagctgg agctgggtctt 200
agcagggtgcc tctctactgc tggctgcact gcttctgggc tgccttgtgg 250
ccctaggggt ccagtaccac agagacccat cccacagcac ctgccttaca 300
gaggcctgca ttcgagtggc tggaaaaatc ctggagtccc tggaccgagg 350
ggtgagcccc tgtgaggact tttaccagtt ctccctgtggg ggctggattc 400
ggaggaaccc cctgcccgat gggcggttctc gctggaacac cttcaacagc 450
ctctgggacc aaaaccaggc catactgaag cacctgcttg aaaacaccac 500
cttcaactcc agcagtgaag ctgagcagaa gacacagcgc ttctacctat 550
cttgcctaca ggtggagcgc attgaggagc tgggagccca gccactgaga 600
gacctcattg agaagattgg tggttggaac attacggggc cctgggacca 650
ggacaacttt atggagggtg tgaaggcagt agcagggacc tacagggcca 700
ccccattctt caccgtctac atcagtgcg actctaagag ttccaacagc 750
aatgttatcc aggtggacca gtctgggctc tttctgcct ctcgggatta 800
ctacttaaac agaactgcc atgagaaagt gctcactgcc tatctggatt 850
acatggagga actgggatg ctgctgggtg ggcggccccc ctccacgagg 900
gagcagatgc agcagggtgt ggagttggag atacagctgg ccaacatcac 950
agtgccccag gaccagcggc gcgacgagga gaagatctac cacaagatga 1000
gcatttcgga gctgcaggct ctggcgccct ccatggactg gcttgagttc 1050
ctgtctttct tgctgtcacc attggagttg agtgactctg agcctgtggt 1100
ggtgtatggg atggattatt tgcagcaggt gtcagagctc atcaaccgca 1150
cggaaccaag catcctgaac aattacctga tctggaacct ggtgcaaaag 1200
acaacctcaa gcctggaccg acgctttgag tctgcacaag agaagctgct 1250
ggagaccctc tatggcacta agaagtccctg tgtgccgagg tggcagacct 1300
gcatctccaa cacggatgac gcccttggtt ttgctttggg gtcactcttc 1350
gtgaaggcca cgtttgaccg gcaaagcaaa gaaattgcag aggggatgat 1400
cagcgaaatc cggaccgcat ttgaggaggc cctgggacag ctggtttgga 1450
tggatgagaa gaccgccag gcagccaagg agaaagcaga tgccatctat 1500

gatatgattg gtttcccaga ctttatcctg gagcccaaag agctggatga 1550
tgtttatgac ggggtacgaaa tttctgaaga ttctttcttc caaaacatgt 1600
tgaatttgta caacttctct gccaaaggta tggctgacca gctccgcaag 1650
cctcccagcc gagaccagtg gagcatgacc ccccagacag tgaatgccta 1700
ctaccttcca actaagaatg agatcgtctt ccccgctggc atcctgcagg 1750
cccccttcta tgcccgcaac caccccaagg ccctgaactt cgggtggcatc 1800
gggtgtggtca tgggccaatga gttgaogcat gcctttgatg accaagggcg 1850
cgagtatgac aaagaaggga acctgcggcc ctggtggcag aatgagtccc 1900
tggcagcctt ccggaaccac acggcctgca tggaggaaca gtacaatcaa 1950
taccagggtca atggggagag gctcaacggc cgccagacgc tgggggagaa 2000
cattactgac aacggggggc tgaaggctgc ctacaatgct taaaaagcat 2050
ggctgagaaa gcatggggag gagcagcaac tgccagccgt ggggctcacc 2100
aaccaccagc tcttcttctg gggatttgcc cagggtgtgtg gctcgggtccg 2150
cacaccagag agctctcacg aggggctggt gaccgacccc cacagccctg 2200
cccgcttccg cgtgctgggc actctctcca actcccgtga cttcctgcgg 2250
cacttcgggt gccctgtcgg ctcccccatg aaccagggc agctgtgtga 2300
gggtgtggtag acctggatca ggggagaaat ggccagctgt caccagacct 2350
ggggcagctc tcctgacaaa gctgtttgct cttgggttgg gaggaagcaa 2400
atgcaagctg ggctgggtct agtcctccc cccacaggt gacatgagta 2450
cagaccctcc tcaatcacca cattgtgcct ctgctttggg ggtgcccctg 2500
cctccagcag agccccacc attcaactgt acatctttcc gtgtcaccct 2550
gcctggaaga ggtctgggtg gggaggccag ttcccatagg aaggagtctg 2600
cc 2602

<210> 526

<211> 736

<212> PRT

<213> Homo sapiens

<400> 526

Met	Asn	Val	Ala	Leu	Gln	Glu	Leu	Gly	Ala	Gly	Ser	Asn	Val	Gly
1				5				10						15
Phe	Gln	Lys	Gly	Thr	Arg	Gln	Leu	Leu	Gly	Ser	Arg	Thr	Gln	Leu
				20					25					30

Glu Pro Val Val	Val Tyr Gly Met Asp	Tyr Leu Gln Gln Val	Ser
335		340	345
Glu Leu Ile Asn	Arg Thr Glu Pro Ser	Ile Leu Asn Asn Tyr	Leu
350		355	360
Ile Trp Asn Leu	Val Gln Lys Thr Thr	Ser Ser Leu Asp Arg	Arg
365		370	375
Phe Glu Ser Ala	Gln Glu Lys Leu Leu	Glu Thr Leu Tyr Gly	Thr
380		385	390
Lys Lys Ser Cys	Val Pro Arg Trp Gln	Thr Cys Ile Ser Asn	Thr
395		400	405
Asp Asp Ala Leu	Gly Phe Ala Leu Gly	Ser Leu Phe Val Lys	Ala
410		415	420
Thr Phe Asp Arg	Gln Ser Lys Glu Ile	Ala Glu Gly Met Ile	Ser
425		430	435
Glu Ile Arg Thr	Ala Phe Glu Glu Ala	Leu Gly Gln Leu Val	Trp
440		445	450
Met Asp Glu Lys	Thr Arg Gln Ala Ala	Lys Glu Lys Ala Asp	Ala
455		460	465
Ile Tyr Asp Met	Ile Gly Phe Pro Asp	Phe Ile Leu Glu Pro	Lys
470		475	480
Glu Leu Asp Asp	Val Tyr Asp Gly Tyr	Glu Ile Ser Glu Asp	Ser
485		490	495
Phe Phe Gln Asn	Met Leu Asn Leu Tyr	Asn Phe Ser Ala Lys	Val
500		505	510
Met Ala Asp Gln	Leu Arg Lys Pro Pro	Ser Arg Asp Gln Trp	Ser
515		520	525
Met Thr Pro Gln	Thr Val Asn Ala Tyr	Tyr Leu Pro Thr Lys	Asn
530		535	540
Glu Ile Val Phe	Pro Ala Gly Ile Leu	Gln Ala Pro Phe Tyr	Ala
545		550	555
Arg Asn His Pro	Lys Ala Leu Asn Phe	Gly Gly Ile Gly Val	Val
560		565	570
Met Gly His Glu	Leu Thr His Ala Phe	Asp Asp Gln Gly Arg	Glu
575		580	585
Tyr Asp Lys Glu	Gly Asn Leu Arg Pro	Trp Trp Gln Asn Glu	Ser
590		595	600
Leu Ala Ala Phe	Arg Asn His Thr Ala	Cys Met Glu Glu Gln	Tyr
605		610	615

Asn	Gln	Tyr	Gln	Val	Asn	Gly	Glu	Arg	Leu	Asn	Gly	Arg	Gln	Thr	
				620					625					630	
Leu	Gly	Glu	Asn	Ile	Thr	Asp	Asn	Gly	Gly	Leu	Lys	Ala	Ala	Tyr	
				635					640					645	
Asn	Ala	Tyr	Lys	Ala	Trp	Leu	Arg	Lys	His	Gly	Glu	Glu	Gln	Gln	
				650					655					660	
Leu	Pro	Ala	Val	Gly	Leu	Thr	Asn	His	Gln	Leu	Phe	Phe	Val	Gly	
				665					670					675	
Phe	Ala	Gln	Val	Trp	Cys	Ser	Val	Arg	Thr	Pro	Glu	Ser	Ser	His	
				680					685					690	
Glu	Gly	Leu	Val	Thr	Asp	Pro	His	Ser	Pro	Ala	Arg	Phe	Arg	Val	
				695					700					705	
Leu	Gly	Thr	Leu	Ser	Asn	Ser	Arg	Asp	Phe	Leu	Arg	His	Phe	Gly	
				710					715					720	
Cys	Pro	Val	Gly	Ser	Pro	Met	Asn	Pro	Gly	Gln	Leu	Cys	Glu	Val	
				725					730					735	

Trp

<210> 527
 <211> 4308
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 1478, 3978, 4057-4058, 4070
 <223> unknown base

<400> 527
 gcccgccct ccgccctccg cactcccgcc tccctccctc cgcccgtcc 50
 cgcgccctcc tccctccctc ctccccagct gtcccggtcg cgtcatgccg 100
 agcctcccgg ccccgccggc cccgctgctg ctctcggggc tgctgctgct 150
 cggctcccgg ccggcccgcg gcgcggggcc agagcccccc gtgctgcca 200
 tccgttctga gaaggagccg ctgccggttc ggggagcggc aggtaggtgg 250
 gcgcccgggg gagggcgggg cggggagtcg ggctcggggc ggtcagcgc 300
 cagcccgag gagggcgggg gcgcaggtgg ctcggcgcgg cgggcggccc 350
 ggaggggtgg cgggggcaga agggcgcggt gcctgggacc cgggacccgc 400
 gggcagcccc cggggcgga cagggcgga gctgggcagc ggcctccagc 450
 caagcccgtc ccgcaggct gcaccttcgg cgggaaggtc tatgccttgg 500

tcggcggctg ctgaagggat tctatggctc agaggcccag ggtgtggtga 2000
aggacctgga gccggaactg ctgcggcacc tggcaaaagg catggcttcc 2050
ctgatgatca ccaccaaggt agccccagag gggagctccg agggcagcct 2100
ctcctcccag gtgcacatag ccaaccaatg tgaggttggc ggactgcgcc 2150
tggaggcggc cggggccgag ggggtgcggg cgctgggggc tccggataca 2200
gcctctgctg cgccgcctgt ggtgcctggt ctcccggccc tagcgccgcg 2250
caaacctggt ggtcctgggc ggccccgaga ccccaacaca tgcttcttcg 2300
aggggcagca gcgccccac ggggctcgct gggcgcccaa ctacgaccg 2350
ctctgctcac tctgcacctg ccagagaoga acggtgatct gtgaccgggt 2400
ggtgtgcca ccgccagct gccacaccc ggtgcaggct cccgaccagt 2450
gctgccctgt ttgccctggc tgctattttg atggtgaccg gagctggcgg 2500
gcagcgggta cgcggtggca ccccgttgtg cccccctttg gcttaattaa 2550
gtgtgctgtc tgcacctgca agcagggggg cactggagag gtgactgtg 2600
agaaggtgca gtgtccccg ctggcctgtg ccagacctgt gcgtgtcaac 2650
cccaccgact gctgcaaaca gtgtccaggt gagggccacc ccagctggg 2700
ggaccccatg caggctgatg ggccccggg ctgccgtttt gctgggcagt 2750
ggttcccaga gagtcagagc tggcaccct cagtgcctcc gtttgagag 2800
atgagctgta tcacctgcag atgtggggta agtggggagc agaggcttgt 2850
gtgaggtggg tactgggagc ctggtctgga gtagggagac cttcccaggg 2900
aggtccctga agaagctgaa ggtcaactgtg tcccagtgcc tctgggggac 2950
actcagtgtc tgctctgtct tgtaccaggc aggggtgcct cactgtgagc 3000
gggatgactg ttcactgcca ctgtcctgtg gctcggggaa ggagagtcga 3050
tgctgttccc gctgcacggc ccaccggcgg cgtaagtgag ggagtccagg 3100
gtcagcagct gtgagtggag ggctcacctg cctgtgggac tcctgatcag 3150
ggaagggagc actcactgtg tgcaggaaca gtgcagcctg cctcacaagt 3200
gccattccaa tccacctca cagcaacctg gtggaattgt tatttatgac 3250
cttttcttta caaatgagat ttctgaagct cagagaaatt aagcaacgag 3300
atgaaggtca ccagctgtg tgactgacc tgtttagaaa atactggcct 3350
ttctgggacc aaggcaggga tgctttgcc tgccctctat gcctctctgt 3400

ctggaaaaat cctggagttcc ctggaaccgag ggggtgagccc ctgtgaggac 400
 ttttaccagt tctcctgtgg gggctggatt cggaggaacc ccctgcccga 450
 tgggcgttct cgctggaaca ccttcaacag cctctgggac caaaaccagg 500
 ccatactgaa gcacctgctt gaaaacacca ccttcaactc cagcagttaa 550
 gctgagcaga agacacagcg cttctaccta tcttgccctac aggtggagcg 600
 cattgaggag ctgggagccc agccactgag agacctcatt gagaagattg 650
 gtggttgga cattacgggg ccctgggacc aggacaactt tatggagggtg 700
 ttgaaggcag tagcagggac ctacagggcc acccattctc tcaccgtcta 750
 catcagtgcc gactctaaga gttccaacag caatgttata caggtggacc 800
 agtctgggct ctttctgccc tctcgggatt actacttaaa cagaactgcc 850
 aatgagaaaag taaggaacat cttccgaacc cccatcccta ccctggctg 900
 agctgggctg atccctgttg acttttcctt ttgccaaggg tcagagcagg 950
 gaaggtgagc ctatcctgtc acctagttaa caaactgccc ctcccttctt 1000
 tcttcttttc ttccctccctc cctcccttcc ttcccttttt ccttccttcc 1050
 ttctctttat tcttctagta ggtttcatag acacctactg tgtgccaggt 1100
 ccagtggggg aattcggaga tataagtttc cgagccattg ccacaggaag 1150
 cgttcagtgt cgatgggttc atggacctag ataggctgat aacaaagctc 1200
 acaagaggggt cctgaggatt caggagagac ttatggagcc agcaaagtct 1250
 tctgaagag attgcatttg agccaggtcc tgtag 1285

<210> 529
 <211> 1380
 <212> DNA
 <213> Homo sapiens

<400> 529
 atgcctacta ccttccaact aagaatgaga tcgtcttccc cgctggcatc 50
 ctgcaggccc cttctatgc ccgcaaccac cccaaggccc tgaacttcgg 100
 tggcatcggt gtggtcatgg gccatgagtt gacgcatgcc tttgatgacc 150
 aagggcgcca gtatgacaaa gaagggaacc tgcggccctg gtggcagaat 200
 gagtccctgg cagccttccg gaaccacacg gcctgcatgg aggaacagta 250
 caatcaatac cagggtcaatg gggagaggct caacggccgc cagacgctgg 300
 gggagaacat tgctgacaac ggggggctga aggctgccta caatgcttac 350

aaagcatggc tgagaaagca tggggaggag cagcaactgc cagccgtggg 400
gctcaccaac caccagctct tcttcgtggg atttgcccag gtgtggtgct 450
cggtcgcac accagagagc tctcagagg ggctggtgac cgacccccac 500
agccctgccc gcttccgcgt gctgggcact ctctccaact cccgtgactt 550
cctgcggcac ttcggctgcc ctgtcggtc ccccatgaac ccagggcagc 600
tgtgtgaggt gtggtagacc tggatcaggg gagaaatggc cagctgtcac 650
cagacctggg gcagctctcc tgacaaagct gtttgctctt gggttgggag 700
gaagcaaag caagctgggc tgggtctagt ccctcccccc cacaggtgac 750
atgagtacag accctcctca atcaccacat tgtgcctctg ctttgggggt 800
gccctgcct ccagcagagc cccaccatt cactgtgaca tctttccgtg 850
tcacctgcc tggagaggt ctgggtgggg aggccagttc ccataggaag 900
gagtctgcct cttctgtccc caggtcact cagcctggcg gccatggggc 950
ctgccgtgcc tgccccactg tgaccacag gcctgggtgg tgtacctcct 1000
ggactttctc ccaggtcac tcagtgcga cttaggggtg gactcagctc 1050
tgtctggctc accctcacgg gctaccccc cctcaccctg tgctccttgt 1100
gccactgctc ccagtgtgc tgctgacct cactgacagc tcctagtga 1150
agcccaaggg cctctgaaag cctcctgctg cccactgttt ccctgggctg 1200
agaggggaag tgcatatgtg tagcgggtac tggttcctgt gtcttagggc 1250
acaagcctta gcaaatgatt gattctccct ggacaaagca ggaaagcaga 1300
tagagcaggg aaaaggaaga acagagttta tttttacaga aaagagggtg 1350
ggagggtgtg gtcttggccc ttataggacc 1380

<210> 530

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 530

gaagcagtcg agccagcagt agagaggcac ctgctaaga 39

<210> 531

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 531
acgcagctgg agctggtctt agca 24

<210> 532
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 532
ggtactggac ccctagggcc acaa 24

<210> 533
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 533
cctcccagcc gagaccagtg g 21

<210> 534
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 534
ggtcctataa gggccaagac c 21

<210> 535
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 535
gactagtctt agatcgcgag cggccgccct tttttttttt tttt 44

<210> 536
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

```

<400> 536
  cggacgcgtg ggtcga 16

<210> 537
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 537
  cggccgtgat ggctggtgac g 21

<210> 538
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 538
  ggcagactcc ttcctatggg 20

<210> 539
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 539
  ggcacttcat ggtccttgaa a 21

<210> 540
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 540
  cggatgtgtg tgaggccatg cc 22

<210> 541
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 541
  gaaagtaacc acggaggtca agat 24

```

<210> 542
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 542
 cctcctccga gactgaaagc t 21

 <210> 543
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 543
 tcgcggtgct ttttctcgcg tg 22

 <210> 544
 <211> 17
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 544
 gcgtgcgtca ggttcca 17

 <210> 545
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 545
 cgttcgtgca gcgtgtgta 19

 <210> 546
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 546
 cttcctcacc acctgcgacg gg 22

 <210> 547
 <211> 23
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 547
ggtaggcggg cctatagatg gtt 23

<210> 548
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 548
agatgtggat gaatgcagtg cta 23

<210> 549
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 549
atcaacaccg ccggcagtta ctgg 24

<210> 550
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 550
acagagtgtg ccgtctgcag aca 23

<210> 551
<211> 19
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 551
agcctcctgg tgcactcct 19

<210> 552
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 552
cgactccctg agcgagcaga tttcc 25

<210> 553
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 553
gctgggcagt cacgagtctt 20

<210> 554
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 554
aatcctccat ctcagatctt ccag 24

<210> 555
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 555
cctcagcggc aacagccggc c 21

<210> 556
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 556
tgggccaagg gctgc 15

<210> 557
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 557

tggtggataa ccaacaagat gg 22

<210> 558

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 558

gagtctgcat ccacaccact cttaaagttc tcaa 34

<210> 559

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 559

caggtgctct tttcagtcac gttt 24

<210> 560

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 560

tggccattct caggacaaga g 21

<210> 561

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic oligonucleotide probe

<400> 561

cagtaatgcc atttgccctgc ctgcat 26

<210> 562

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 562

tgccctggaat cacatgaca 19

<210> 563

<211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> synthetic oligonucleotide probe

 <400> 563
 tgtggcacag acccaatcct 20

 <210> 564
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 564
 gaccctgaag gcctccggcc t 21

 <210> 565
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 565
 gagagaggga aggagctat gtc 23

 <210> 566
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 566
 cagcccctct ctttcacctg t 21

 <210> 567
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 567
 ccatcctgtg cagctgacac acagc 25

 <210> 568
 <211> 20
 <212> DNA
 <213> Artificial Sequence

```

<220>
<223> Synthetic oligonucleotide probe

<400> 568
gccaggctat gaggtcctt 20

<210> 569
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 569
ttcaagttcc tgaagccgat tat 23

<210> 570
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 570
ccaacttccc tccccagtg cct 23

<210> 571
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 571
ttggggaagg tagaatttcc ttgtat 26

<210> 572
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 572
cccttctgcc tccaattct 20

<210> 573
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

```



```

<210> 579
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 579
aagcttctgt tcaatcccag cggtcc 26

<210> 580
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 580
atgcacaggc tttttctggt aa 22

<210> 581
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 581
gcaggaaacc ttcgaatctg ag 22

<210> 582
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 582
acacctgagg cacctgagag aggaactct 29

<210> 583
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 583
gacagcccag tacacctgca a 21

<210> 584
<211> 21
<212> DNA

```

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 584

gacggctgga tctgtgagaa a 21

<210> 585

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 585

cacaactgct gaccccgccc a 21

<210> 586

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 586

ccaggatacg acatgctgca 20

<210> 587

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 587

aaactccaac ctgtatcaga tgca 24

<210> 588

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 588

cccccaagcc cttagactct aagcc 25

<210> 589

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

```

<223> Synthetic oligonucleotide probe

<400> 589
gacccggcac cttgctaac 19

<210> 590
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 590
ggacggtcag tcaggatgac a 21

<210> 591
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 591
ttcgcatca tcttctccct ctccc 25

<210> 592
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 592
acaaaaaaaa gggaacaaaa tacga 25

<210> 593
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 593
ctttgaatag aagacttctg gacaattt 28

<210> 594
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 594

```

ttgcaactgg gaatatacca cgacatgaga 30

<210> 595

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 595

tagggtgcta atttgtgcta taacct 26

<210> 596

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 596

ggctctgagt ctctgcttga 20

<210> 597

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 597

tccaacaacc attttcctct ggtcc 25

<210> 598

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 598

aagcagtagc cattaacaag tca 23

<210> 599

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 599

caagcgtcca ggtttattga 20

<210> 600

<211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 600
 gactacaagg cgctcagcta 20

<210> 601
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 601
 ccggctgggt ctcaactctc c 21

<210> 602
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 602
 cgttcgtgca gcgtgtgta 19

<210> 603
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 603
 cttcctcacc acctgacgac gg 22

<210> 604
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 604
 ggtaggcggt cctatagatg gtt 23

<210> 605
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

 <400> 605
 agatgtggat gaatgcagtg cta 23

 <210> 606
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 606
 atcaacaccg ccggcagtta ctgg 24

 <210> 607
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 607
 acagagtgtta ccgtctgcag aca 23

 <210> 608
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 608
 agcctcctgg tgcactcct 19

 <210> 609
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 609
 cgactccctg agcgagcaga tttcc 25

 <210> 610
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

aaccttttgt ttttaaattg acctgccaag gtagctgaag acctttttaga 2750
 cagttccatc ttttttttta aattttttct gcctatttaa agacaaatta 2800
 tgggacgttt gtcaaaaaaa aaaaaaaaaa aaaaaaaaaa 2840

<210> 612
 <211> 352
 <212> PRT
 <213> Homo Sapien

<400> 612

Met	Met	Leu	Leu	Val	Gln	Gly	Ala	Cys	Cys	Ser	Asn	Gln	Trp	Leu	1	5	10	15
Ala	Ala	Val	Leu	Leu	Ser	Leu	Cys	Cys	Leu	Leu	Pro	Ser	Cys	Leu	20	25	30	
Pro	Ala	Gly	Gln	Ser	Val	Asp	Phe	Pro	Trp	Ala	Ala	Val	Asp	Asn	35	40	45	
Met	Met	Val	Arg	Lys	Gly	Asp	Thr	Ala	Val	Leu	Arg	Cys	Tyr	Leu	50	55	60	
Glu	Asp	Gly	Ala	Ser	Lys	Gly	Ala	Trp	Leu	Asn	Arg	Ser	Ser	Ile	65	70	75	
Ile	Phe	Ala	Gly	Gly	Asp	Lys	Trp	Ser	Val	Asp	Pro	Arg	Val	Ser	80	85	90	
Ile	Ser	Thr	Leu	Asn	Lys	Arg	Asp	Tyr	Ser	Leu	Gln	Ile	Gln	Asn	95	100	105	
Val	Asp	Val	Thr	Asp	Asp	Gly	Pro	Tyr	Thr	Cys	Ser	Val	Gln	Thr	110	115	120	
Gln	His	Thr	Pro	Arg	Thr	Met	Gln	Val	His	Leu	Thr	Val	Gln	Val	125	130	135	
Pro	Pro	Lys	Ile	Tyr	Asp	Ile	Ser	Asn	Asp	Met	Thr	Val	Asn	Glu	140	145	150	
Gly	Thr	Asn	Val	Thr	Leu	Thr	Cys	Leu	Ala	Thr	Gly	Lys	Pro	Glu	155	160	165	
Pro	Ser	Ile	Ser	Trp	Arg	His	Ile	Ser	Pro	Ser	Ala	Lys	Pro	Phe	170	175	180	
Glu	Asn	Gly	Gln	Tyr	Leu	Asp	Ile	Tyr	Gly	Ile	Thr	Arg	Asp	Gln	185	190	195	
Ala	Gly	Glu	Tyr	Glu	Cys	Ser	Ala	Glu	Asn	Ala	Val	Ser	Phe	Pro	200	205	210	
Asp	Val	Arg	Lys	Val	Lys	Val	Val	Val	Asn	Phe	Ala	Pro	Thr	Ile	215	220	225	
Gln	Glu	Ile	Lys	Ser	Gly	Thr	Val	Thr	Pro	Gly	Arg	Ser	Gly	Leu				

Ile Arg Cys Glu Gly Ala Gly Val Pro	Pro Pro Ala Phe Glu Trp	
245	250	255
Tyr Lys Gly Glu Lys Lys Leu Phe Asn	Gly Gln Gln Gly Ile Ile	
260	265	270
Ile Gln Asn Phe Ser Thr Arg Ser Ile	Leu Thr Val Thr Asn Val	
275	280	285
Thr Gln Glu His Phe Gly Asn Tyr Thr	Cys Val Ala Ala Asn Lys	
290	295	300
Leu Gly Thr Thr Asn Ala Ser Leu Pro	Leu Asn Pro Pro Ser Thr	
305	310	315
Ala Gln Tyr Gly Ile Thr Gly Ser Ala	Asp Val Leu Phe Ser Cys	
320	325	330
Trp Tyr Leu Val Leu Thr Leu Ser Ser	Phe Thr Ser Ile Phe Tyr	
335	340	345
Leu Lys Asn Ala Ile Leu Gln		
350		

<210> 613
 <211> 1797
 <212> DNA
 <213> Homo Sapien

<400> 613
 agtgggttcga tgggaaggat cttttctcaa gtggttcctc ttgaggggag 50
 cattttctgct ggctccagga ctttggccat ctataaagct tggcaatgag 100
 aaataagaaa attctcaagg aggacgagct cttgagttag acccaacaag 150
 ctgctttttca ccaaattgca atggagcctt tcgaaatcaa tgttccaaag 200
 cccaagagga gaaatggggg gaacttctcc ctagctgtgg tggatcatcta 250
 cctgatcctg ctcaccgctg gcgctgggct gctggtgggc caagttctga 300
 atctgcaggc ggggtccggt gtcttgaga tgtatttctt caatgacact 350
 ctggcgggctg aggacagccc gtccttctcc ttgctgcagt cagcacaccc 400
 tggagaacac ctggctcagg gtgcatcgag gctgcaagtc ctgcaggccc 450
 aactcacctg ggtccgctgc agccatgagc acttgctgca gcgggtagac 500
 aacttcactc agaaccaggt gatgttcaga atcaaaggtg aacaaggcgc 550
 cccaggtctt caaggtcaca agggggccat gggcatgcct ggtgcccttg 600
 gcccgccggg accacctgct gagaaggag ccaagggggc tatgggacga 650

gatggagcaa caggcccctc gggaccccaa ggcccaccgg gagtcaaggg 700
agaggcgggc ctccaaggac cccaggggtgc tccagggaag caaggagcca 750
ctggcacccc aggaccccaa ggagagaagg gcagcaaagg cgatgggggt 800
ctcattggcc caaaagggga aactggaact aaggagaga aaggagacct 850
gggtctccca ggaagcaaag gggacagggg catgaaagga gatgcagggg 900
tcatggggcc tcctggagcc caggggagta aaggtgactt cgggaggcca 950
ggcccaccag gtttggtctg ttttcctgga gctaaaggag atcaaggaca 1000
acctggactg caggggtgtt cgggccctcc tgggtgcagt ggacaccag 1050
gtgccaaagg tgagcctggc agtgctggct cccctgggag agcaggactt 1100
ccaggagacc ccgggagtc aggagccaca ggcctgaaag gaagcaaagg 1150
ggacacagga cttcaaggac agcaaggaag aaaaggagaa tcaggagttc 1200
caggccctgc aggtgtgaag ggagaacagg ggagcccagg gctggcaggt 1250
cccaaggag cccctggaca agctggccag aaggagagacc agggagtga 1300
aggatcttct ggggagcaag gagtaaagg agaaaaagg gaaagagggt 1350
aaaactcagt gtccgtcagg attgtcggca gtagtaaccg aggccgggct 1400
gaagtttact acagtgggtac ctgggggaca atttgcgat acgagtggca 1450
aaattctgat gccattgtct tctgccgat gctgggttac tccaaaggaa 1500
gggccctgta caaagtggga gctggcactg ggcagatctg gctggataat 1550
gttcagtgtc ggggcacgga gtagtcctg tggagctgca ccaagaatag 1600
ctggggccat catgactgca gccacgagga ggacgcaggc gtggagtgca 1650
ggtctgacc cggaaaccct ttcacttctc tgctcccgag gtgtcctcgg 1700
gctcatatgt ggggaaggcag aggatctctg aggagttccc tggggacaac 1750
tgagcagcct ctggagaggg gccattaata aagctcaaca tcattga 1797

<210> 614

<211> 520

<212> PRT

<213> Homo Sapien

<400> 614

Met	Arg	Asn	Lys	Lys	Ile	Leu	Lys	Glu	Asp	Glu	Leu	Leu	Ser	Glu
1				5				10					15	
Thr	Gln	Gln	Ala	Ala	Phe	His	Gln	Ile	Ala	Met	Glu	Pro	Phe	Glu
			20					25					30	

Ile	Asn	Val	Pro	Lys	Pro	Lys	Arg	Arg	Asn	Gly	Val	Asn	Phe	Ser	
				35					40					45	
Leu	Ala	Val	Val	Val	Ile	Tyr	Leu	Ile	Leu	Leu	Thr	Ala	Gly	Ala	
				50					55					60	
Gly	Leu	Leu	Val	Val	Gln	Val	Leu	Asn	Leu	Gln	Ala	Arg	Leu	Arg	
				65					70					75	
Val	Leu	Glu	Met	Tyr	Phe	Leu	Asn	Asp	Thr	Leu	Ala	Ala	Glu	Asp	
				80					85					90	
Ser	Pro	Ser	Phe	Ser	Leu	Leu	Gln	Ser	Ala	His	Pro	Gly	Glu	His	
				95					100					105	
Leu	Ala	Gln	Gly	Ala	Ser	Arg	Leu	Gln	Val	Leu	Gln	Ala	Gln	Leu	
				110					115					120	
Thr	Trp	Val	Arg	Val	Ser	His	Glu	His	Leu	Leu	Gln	Arg	Val	Asp	
				125					130					135	
Asn	Phe	Thr	Gln	Asn	Pro	Gly	Met	Phe	Arg	Ile	Lys	Gly	Glu	Gln	
				140					145					150	
Gly	Ala	Pro	Gly	Leu	Gln	Gly	His	Lys	Gly	Ala	Met	Gly	Met	Pro	
				155					160					165	
Gly	Ala	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Ala	Glu	Lys	Gly	Ala	Lys	
				170					175					180	
Gly	Ala	Met	Gly	Arg	Asp	Gly	Ala	Thr	Gly	Pro	Ser	Gly	Pro	Gln	
				185					190					195	
Gly	Pro	Pro	Gly	Val	Lys	Gly	Glu	Ala	Gly	Leu	Gln	Gly	Pro	Gln	
				200					205					210	
Gly	Ala	Pro	Gly	Lys	Gln	Gly	Ala	Thr	Gly	Thr	Pro	Gly	Pro	Gln	
				215					220					225	
Gly	Glu	Lys	Gly	Ser	Lys	Gly	Asp	Gly	Gly	Leu	Ile	Gly	Pro	Lys	
				230					235					240	
Gly	Glu	Thr	Gly	Thr	Lys	Gly	Glu	Lys	Gly	Asp	Leu	Gly	Leu	Pro	
				245					250					255	
Gly	Ser	Lys	Gly	Asp	Arg	Gly	Met	Lys	Gly	Asp	Ala	Gly	Val	Met	
				260					265					270	
Gly	Pro	Pro	Gly	Ala	Gln	Gly	Ser	Lys	Gly	Asp	Phe	Gly	Arg	Pro	
				275					280					285	
Gly	Pro	Pro	Gly	Leu	Ala	Gly	Phe	Pro	Gly	Ala	Lys	Gly	Asp	Gln	
				290					295					300	
Gly	Gln	Pro	Gly	Leu	Gln	Gly	Val	Pro	Gly	Pro	Pro	Gly	Ala	Val	
				305					310					315	
Gly	His	Pro	Gly	Ala	Lys	Gly	Glu	Pro	Gly	Ser	Ala	Gly	Ser	Pro	

320		325		330
Gly Arg Ala Gly Leu Pro Gly Ser Pro	Gly Ser Pro Gly Ala Thr			
335	340			345
Gly Leu Lys Gly Ser Lys Gly Asp Thr	Gly Leu Gln Gly Gln Gln			
350	355			360
Gly Arg Lys Gly Glu Ser Gly Val Pro	Gly Pro Ala Gly Val Lys			
365	370			375
Gly Glu Gln Gly Ser Pro Gly Leu Ala	Gly Pro Lys Gly Ala Pro			
380	385			390
Gly Gln Ala Gly Gln Lys Gly Asp Gln	Gly Val Lys Gly Ser Ser			
395	400			405
Gly Glu Gln Gly Val Lys Gly Glu Lys	Gly Glu Arg Gly Glu Asn			
410	415			420
Ser Val Ser Val Arg Ile Val Gly Ser	Ser Asn Arg Gly Arg Ala			
425	430			435
Glu Val Tyr Tyr Ser Gly Thr Trp Gly	Thr Ile Cys Asp Asp Glu			
440	445			450
Trp Gln Asn Ser Asp Ala Ile Val Phe	Cys Arg Met Leu Gly Tyr			
455	460			465
Ser Lys Gly Arg Ala Leu Tyr Lys Val	Gly Ala Gly Thr Gly Gln			
470	475			480
Ile Trp Leu Asp Asn Val Gln Cys Arg	Gly Thr Glu Ser Thr Leu			
485	490			495
Trp Ser Cys Thr Lys Asn Ser Trp Gly	His His Asp Cys Ser His			
500	505			510
Glu Glu Asp Ala Gly Val Glu Cys Ser	Val			
515	520			

<210> 615
 <211> 647
 <212> DNA
 <213> Homo Sapien

<400> 615
 cccacgcgtc cgaaggcaga caaaggttca tttgttaaaga agctccttcc 50
 agcacctcct ctctttctcct tttgcccaaa ctcacccagt gagtgtgagc 100
 atttaagaag catcctctgc caagacccaaa aggaaagaag aaaaagggcc 150
 aaaagccaaa atgaaactga tggctacttgt tttcaccatt gggctaactt 200
 tgctgctagg agttcaagcc atgcctgcaa atcgctctc ttgctacaga 250
 aagatactaa aagatcacia ctgtcacaac cttccggaag gagtagctga 300

cctgacacag attgatgtca atgtccagga tcatttctgg gatgggaagg 350
 gatgtgagat gatctgttac tgcaacttca gcgaattgct ctgctgcca 400
 aaagacgttt tctttggacc aaagatctct ttcgtgattc cttgcaacaa 450
 tcaatgagaa tcttcatgta ttctggagaa caccattcct gatttccac 500
 aaactgcact acatcagtat aactgcattt ctagtttcta tatagtcaa 550
 tagagcatag attctataaa ttcttacttg tctaagacaa gtaaattctgt 600
 gttaaacaag tagtaataaa agttaattca atctaaaaaa aaaaaa 647

<210> 616
 <211> 98
 <212> PRT
 <213> Homo Sapien

<400> 616
 Met Lys Leu Met Val Leu Val Phe Thr Ile Gly Leu Thr Leu Leu
 1 5 10 15
 Leu Gly Val Gln Ala Met Pro Ala Asn Arg Leu Ser Cys Tyr Arg
 20 25 30
 Lys Ile Leu Lys Asp His Asn Cys His Asn Leu Pro Glu Gly Val
 35 40 45
 Ala Asp Leu Thr Gln Ile Asp Val Asn Val Gln Asp His Phe Trp
 50 55 60
 Asp Gly Lys Gly Cys Glu Met Ile Cys Tyr Cys Asn Phe Ser Glu
 65 70 75
 Leu Leu Cys Cys Pro Lys Asp Val Phe Phe Gly Pro Lys Ile Ser
 80 85 90
 Phe Val Ile Pro Cys Asn Asn Gln
 95

<210> 617
 <211> 2558
 <212> DNA
 <213> Homo Sapien

<400> 617
 cccacgcgtc cgcggacgcg tgggctggac ccaggtctg gagcgaattc 50
 cagcctgcag ggctgataag cgaggcatta gtgagattga gagagacttt 100
 accccgccgt ggtggttgga gggcgcgag tagagcagca gcacaggcgc 150
 ggggtcccggg aggcggctc tgctcgcc gagatgtgga atctccttca 200
 cgaaaccgac tcggctgtgg ccaccgcgc cgcggcggc tggctgtgcg 250
 ctggggcgct ggtgctggcg ggtggcttct ttctcctcg cttcctcttc 300

Ile	Asp	Pro	Leu	Gly	Leu	Pro	Asp	Arg	Pro	Phe	Tyr	Arg	His	Val
				680					685					690
Ile	Tyr	Ala	Pro	Ser	Ser	His	Asn	Lys	Tyr	Ala	Gly	Glu	Ser	Phe
				695					700					705
Pro	Gly	Ile	Tyr	Asp	Ala	Leu	Phe	Asp	Ile	Glu	Ser	Lys	Val	Asp
				710					715					720
Pro	Ser	Lys	Ala	Trp	Gly	Glu	Val	Lys	Arg	Gln	Ile	Tyr	Val	Ala
				725					730					735
Ala	Phe	Thr	Val	Gln	Ala	Ala	Ala	Glu	Thr	Leu	Ser	Glu	Val	Ala
				740					745					750

<210> 619

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 619

agatgtgaag gtgcaggtgt gccg 24

<210> 620

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 620

gaacatcagc gctccccgta attcc 25

<210> 621

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 621

ccagcctttg aatggtacaa aggagagaag aagctcttca atggcc 46

<210> 622

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 622

ccaaactcac ccagtgagtg tgagc 25

<210> 623
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 623
tgggaaatca ggaatggtgt tctcc 25

<210> 624
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide probe

<400> 624
cttgttttca ccattgggct aactttgctg ctaggagttc aagccatgcc 50

2007-05-10 10:00:00